

ANNUAL REPORTS
FOR
YELLOWSTONE NATIONAL PARK

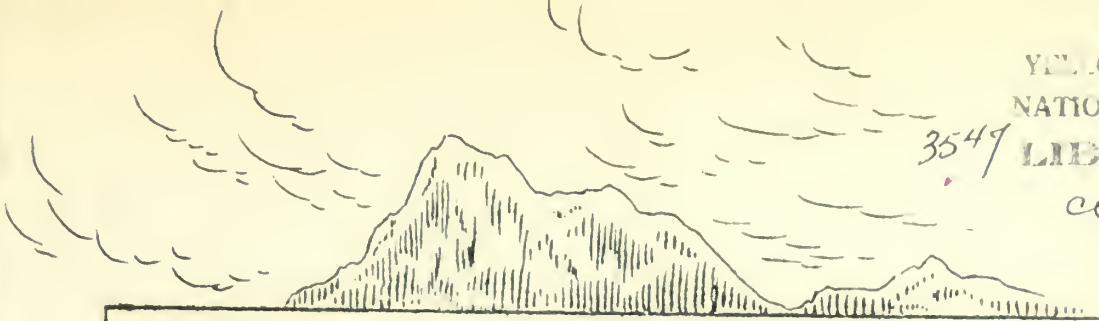
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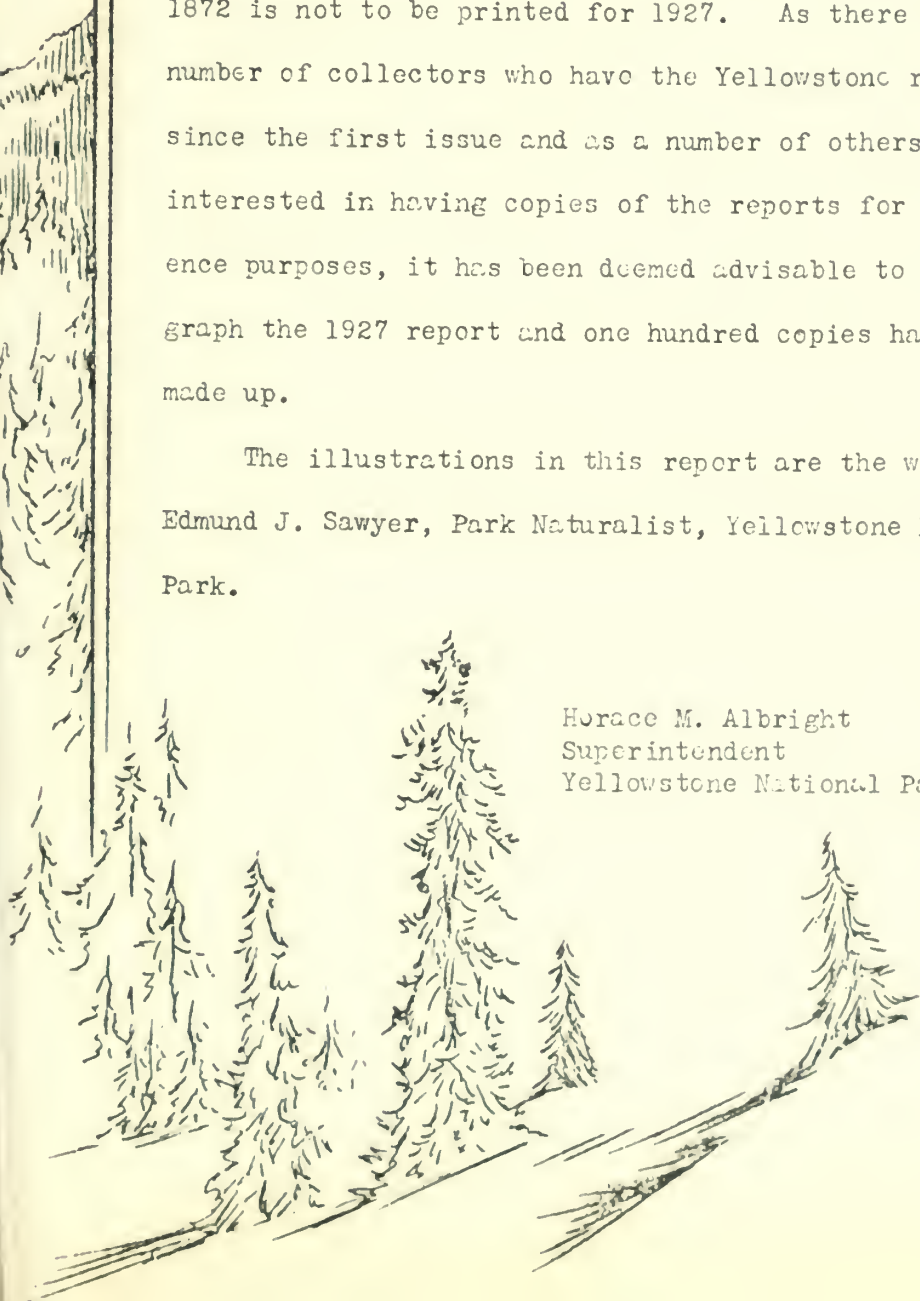
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ANNUAL REPORT
FOR
YELLOWSTONE NATIONAL PARK
1927

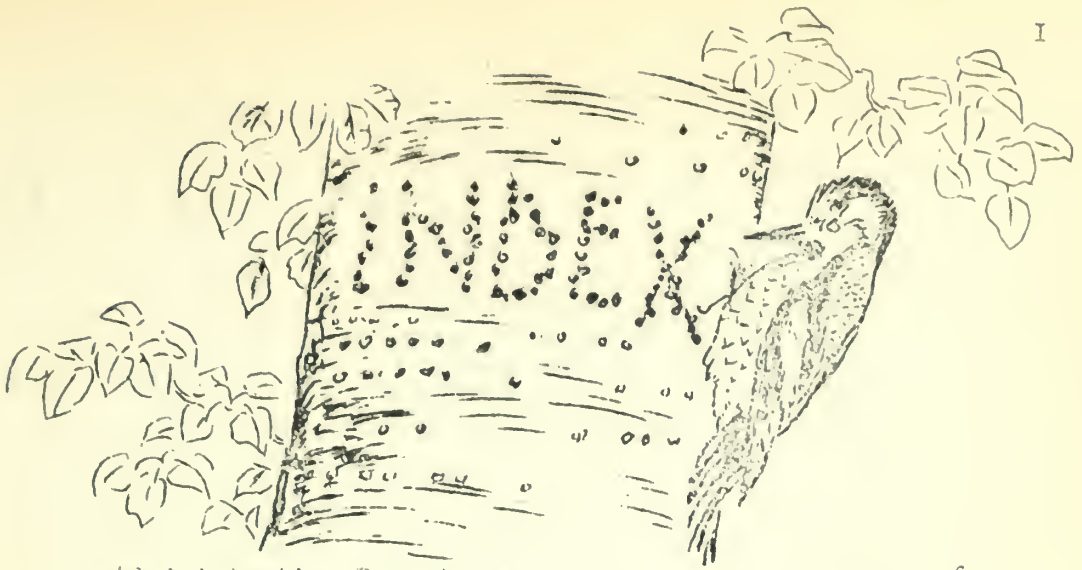


The annual report for Yellowstone National Park for the first time since the creation of the Park in 1872 is not to be printed for 1927. As there are a number of collectors who have the Yellowstone reports since the first issue and as a number of others are interested in having copies of the reports for reference purposes, it has been deemed advisable to mimeograph the 1927 report and one hundred copies have been made up.

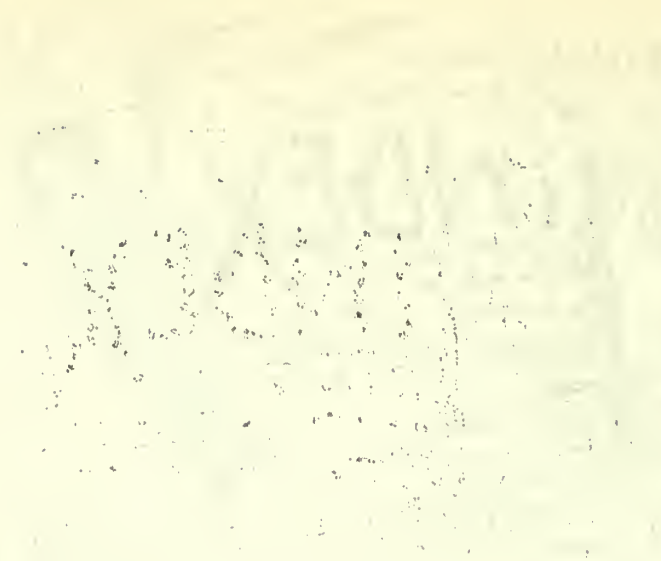


The illustrations in this report are the work of Edmund J. Sawyer, Park Naturalist, Yellowstone National Park.

Horace M. Albright
Superintendent
Yellowstone National Park



Administrative Department.....	6
Automobile Camps.....	10
Animals.....	13
Appropriations.....	6
Birds (migratory).....	17
Bridges.....	7
Buildings.....	8
Buffalo Ranch.....	12
Camps, automobile.....	10
Camps, permanent.....	23
Cases tried before U. S. Commissioner.....	26
Cooperation with other Government organizations:	
<u>Department of Agriculture:</u>	
Weather Bureau.....	27
Bureau of Entomology.....	27
<u>Department of Commerce:</u>	
Bureau of Fisheries.....	27
<u>Department of the Interior:</u>	
Inspection Service.....	27
Geological Survey.....	27
<u>Department of Justice:</u>	
Commissioner's Court.....	26
<u>Post Office Department.....</u>	26
<u>Treasury Department:</u>	
Public Health Service.....	27
Cultivation of land:	
Hay Operations.....	13
Distinguished Visitors.....	2
Donations.....	29
Dust Prevention.....	7



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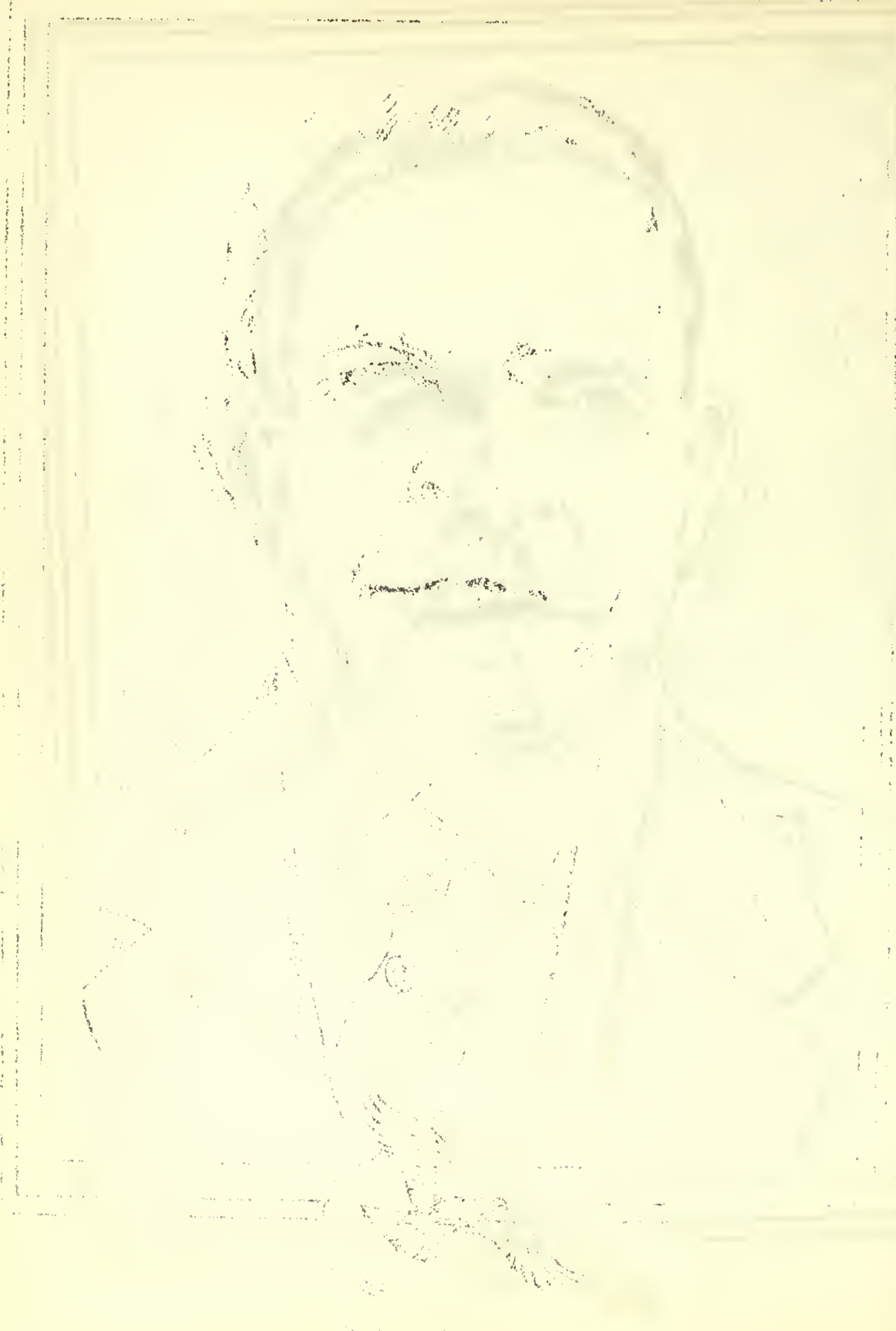
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Electrical Department.....	21
Elk Commission.....	28
Extension.....	29
Engineering Department.....	6
Fish Planting.....	12
Forest Fires.....	11
Franchises and Permits.....	26
Geysers, Hot Springs and Other Similar Phenomena.....	17
Guide Service.....	21
Hay and Hay Ranches.....	15
Hospital and Medical Service.....	27
Improvements by park utilities.....	23
Information Department.....	20
Insects.....	17
Landscaping Engineering Activities.....	7
Legislation.....	29
Lecture Service.....	20
Mechanical Department.....	22
Medical Service.....	27
Mosquito Control.....	10
Natural Features of the Park.....	13
Opening of Park.....	1
Opening of Roads.....	7
President's Visit.....	30
Painting Department.....	23
Permanent Camps.....	23
Permits.....	26
Post Office Department.....	26
Power Plant.....	21
Predatory Animals.....	13
Property and Transportation Department.....	25
Protection Department.....	11
Public Utilities.....	23
Pioneers, Death of.....	28
Revenues.....	6
Road Maintenance.....	7
Road Improvement.....	8
Roadside Cleanup.....	9
Sanitation.....	10
Snow Removal.....	7

Telephone Lines.....	21
Trails.....	11
Transportation Company.....	25
Travel of 1927 Season.....	4
Trees.....	17
Violations of Laws.....	26
Weather.....	3
Wild Animals:	
Antelope.....	14
Bears.....	16
Beaver.....	16
Buffalo:	
Lamar River Herd.....	13
Cold Creek-Pelican Flats Herd.....	14
Coyotes.....	15
Deer.....	15
Elk.....	15
Moose.....	14
Mountain Sheep.....	14
Small Animals.....	16







ANNUAL REPORT FOR YELLOWSTONE NATIONAL PARK

1927

Horace M. Albright, Superintendent

During the spring of 1927 unusual weather conditions prevailed and much difficulty was experienced in clearing the roads of snow. This condition adversely affected travel during the early part of the season but when the park closed our records indicated an increase of 13,018 visitors over last year, or an increase of 6.9 percent.

The formal opening of the park took place at the Cody entrance on June 19th. The guests of honor and principal speakers were Hon. John Q. Tilson, Floor Leader of the U. S. House of Representatives, Congressman Charles E. Winter of Wyoming, Governor Frank C. Emerson of Wyoming and two Indians, White-Man-Runs-Him, last of General Custer's Crow Scouts, and Max Big Man, interpreter for the old scout. Arrangements for the opening were made by the Chicago, Burlington & Quincy Railroad, the Cody Club, the Cody Lions' Club, and the National Park Service. The Forest Service cooperated also. A large crowd attended the opening ceremonies.



On June 17th there were celebrations commemorating the opening of the Bozeman and Gallatin Gateway entrance to the park. On the morning of the 17th Northern Pacific officials, State officers and others participated in a celebration in Bozeman featuring the beginning of Northern Pacific service to Bozeman. During the afternoon and evening, the new facilities of the Chicago, Milwaukee & St. Paul System at Gallatin Gateway were thrown open for inspection with appropriate ceremonies. Many high officers of the Milwaukee System were there.

THE HISTORY OF THE

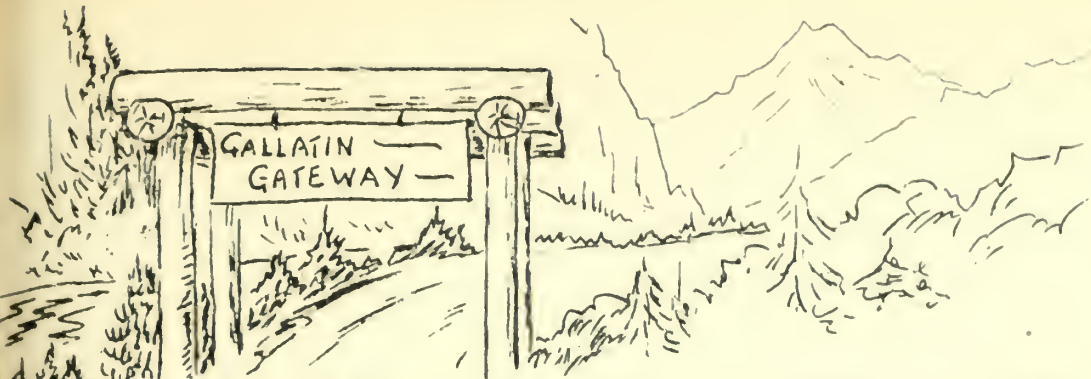
REPUBLIC OF THE UNITED STATES

The first part of the history of the United States is the story of the early years of the Republic. It is a story of the struggles of the people to establish a government of their own, and of the many difficulties they had to overcome. The second part of the history is the story of the growth of the Republic. It is a story of the expansion of the territory, and of the development of the economy. The third part of the history is the story of the civil war. It is a story of the struggle between the North and the South, and of the ultimate triumph of the Union.

The fourth part of the history is the story of the Reconstruction. It is a story of the efforts to rebuild the South, and of the struggle for civil rights. The fifth part of the history is the story of the Progressive Era. It is a story of the reforms of the late 19th and early 20th centuries, and of the rise of the Progressive movement. The sixth part of the history is the story of the World War. It is a story of the United States' entry into the war, and of the role it played in the conflict. The seventh part of the history is the story of the post-war period. It is a story of the challenges of the 1940s and 1950s, and of the rise of the Cold War.



The eighth part of the history is the story of the Vietnam War. It is a story of the United States' involvement in the conflict, and of the challenges it faced. The ninth part of the history is the story of the 1960s and 1970s. It is a story of the social movements, and of the challenges of the era. The tenth part of the history is the story of the 1980s and 1990s. It is a story of the end of the Cold War, and of the challenges of the new millennium. The eleventh part of the history is the story of the 21st century. It is a story of the challenges of the 21st century, and of the role of the United States in the world.

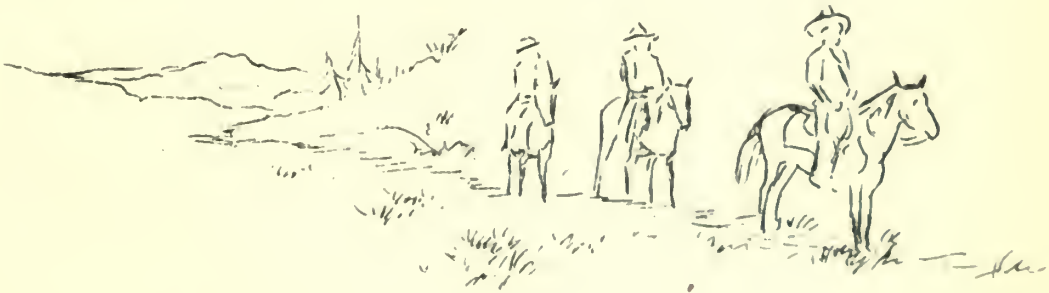


The park was unusually beautiful this year. The heavy snows of the winter and late spring storms saturated the ground with moisture and grasses and flowers grew in great profusion everywhere. Tourists were fortunate in seeing moose and other wild animals close to the roads. Fishing was good and gave pleasure to thousands of people.

During the summer the roads of the Grand Loop were oiled from time to time instead of being sprinkled as in the past, and many favorable comments were made by tourists. This oiling was more or less in the nature of an experiment but there is no doubt but what it has been a great success as a dust palliative.

Service furnished by the park operators and by the Government organization was superior to that rendered in previous years. Very few complaints were received.

Our educational work proceeded in a satisfactory manner and thousands of people made use of the Information Office and Museum at headquarters. Many visitors also traveled over the nature trails and horseback trails.



A great many prominent persons were among the visitors during the year. These included Hon. Calvin Coolidge, President of the United States, Mrs. Coolidge and their son John; Honorable Everett Sanders, Secretary to the President, and Mrs. Sanders; Secretary of the Interior, Dr. Hubert Work; Secretary of Commerce Herbert Hoover, Governor Frank C. Emerson of Wyoming; Governor J. S. Fisher of Pennsylvania; Assistant Secretary of the Interior, John H. Edwards; U. S. Senators Reed Smoot of Utah, T. L. Oddie of Nevada, and Wesley L. Jones of Washington; U. S. Representatives Scott Leavitt of Montana; Frederick W. McGrady of Pennsylvania; T. J. B. Robinson of Iowa; Frederick W. Dallinger of Massachusetts; Charles E. Winter of Wyoming;

William C. Lankford of Georgia; Carl R. Chindblom of Illinois, and John Q. Tilson, Floor Leader of the House of Representatives; Mr. H. E. Byram, Receiver of the C. M. & St. Paul Ry.; President Carl R. Gray of the Union Pacific System; President Agnew T. Dice of the Reading Railroad Company; Rear Admiral Wilson, U. S. N., Retired; Major General Mason M. Patrick, Chief of the Air Service, U.S.A.; Mabel Walker Willebrandt, U. S. Assistant Attorney General; Wyoming Press Association; Hon. Louis Franck, Governor of the Bank of Belgium and Ministre d'Etat; a foreign ambassador, and many prominent business and scientific men.

WEATHER

Following an unseasonably cold and stormy September, the weather during October, November and the early part of December was generally mild and pleasant for the season. A cold wave of unusual intensity prevailed from December 12 to 15, it being the first real wintry weather that had been experienced for a period of nearly two years, or since the record-breaking cold wave of December 17-27, 1924. However, the snowfall for this storm, as well as for the month of December, was extremely light. January was marked by quite pronounced temperature extremes. The first decade was exceptionally mild, while at the end of the second decade a severe cold wave occurred, resulting in the lowest temperatures for the winter, and ranging from 28° below zero at Mammoth on the 21st to 49° below at the Buffalo Ranch on the same date. The persistence of strong northerly winds with temperatures well below zero greatly intensified this storm, which was the most severe and blizzard-like that had occurred for over two years.



No adverse winter conditions were recorded during February and March, seasonable temperatures prevailing generally. The unseasonably cold, wet, stormy April and May resulted in one of the most backward springs of record. June was also marked by the continuation of the cool, wet, showery weather that had characterized the spring months. The snowfall for the winter was considerably above normal in all the higher regions of the park. The only region of deficient snowfall was in the extreme lower Gardiner River basin, from Mammoth northward. At the end of May exceptionally heavy depths of snow for so late in the season remained at the higher elevations. The snow line then appeared to vary

between the 7,200 and 7,400 foot levels, increasing to about 4 to 6 feet at an elevation of 8,000 feet, and to about 8 to 10 feet at the 8,500 foot elevation. This unusual situation is chiefly accounted for by the fact that the winter's snowfall was much heavier than normal over the higher regions, together with the persistence of unseasonably cold, stormy weather during the late spring, thus retarding the normal spring melting; also to the fact that the deficiency in sunshine for May was without a precedent. A reaction to seasonable weather did not occur until after the first week in July. However, the warmer weather was of short duration as August was exceptionally cool with frequent showers and thunderstorms.

TRAVEL IN 1927

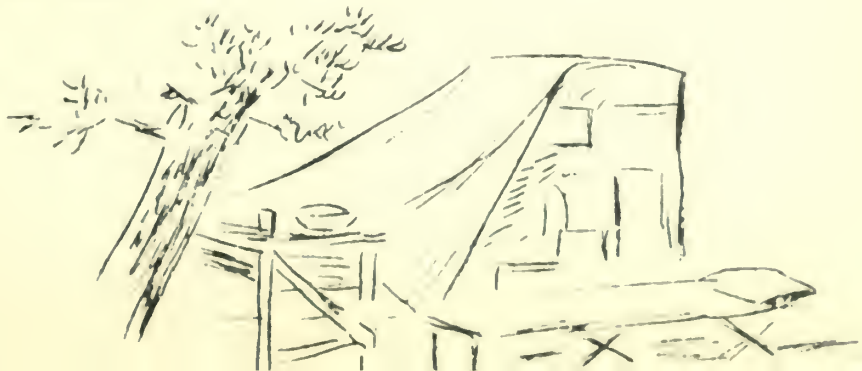
Park Visitors this year totaled 200,825, as compared with 187,807 last year, an increase of 13,018. The rail travel figures were 41,685 as compared with 40,960 last year, showing an increase of 725. There was an increase of 1,265 rail visitors at the west entrance; the north entrance shows a decrease of 355 and the east entrance a decrease of 23, as compared with the preceding season. 109 rail visitors entered via the Lander or southern gateway, as compared with 271 last year.

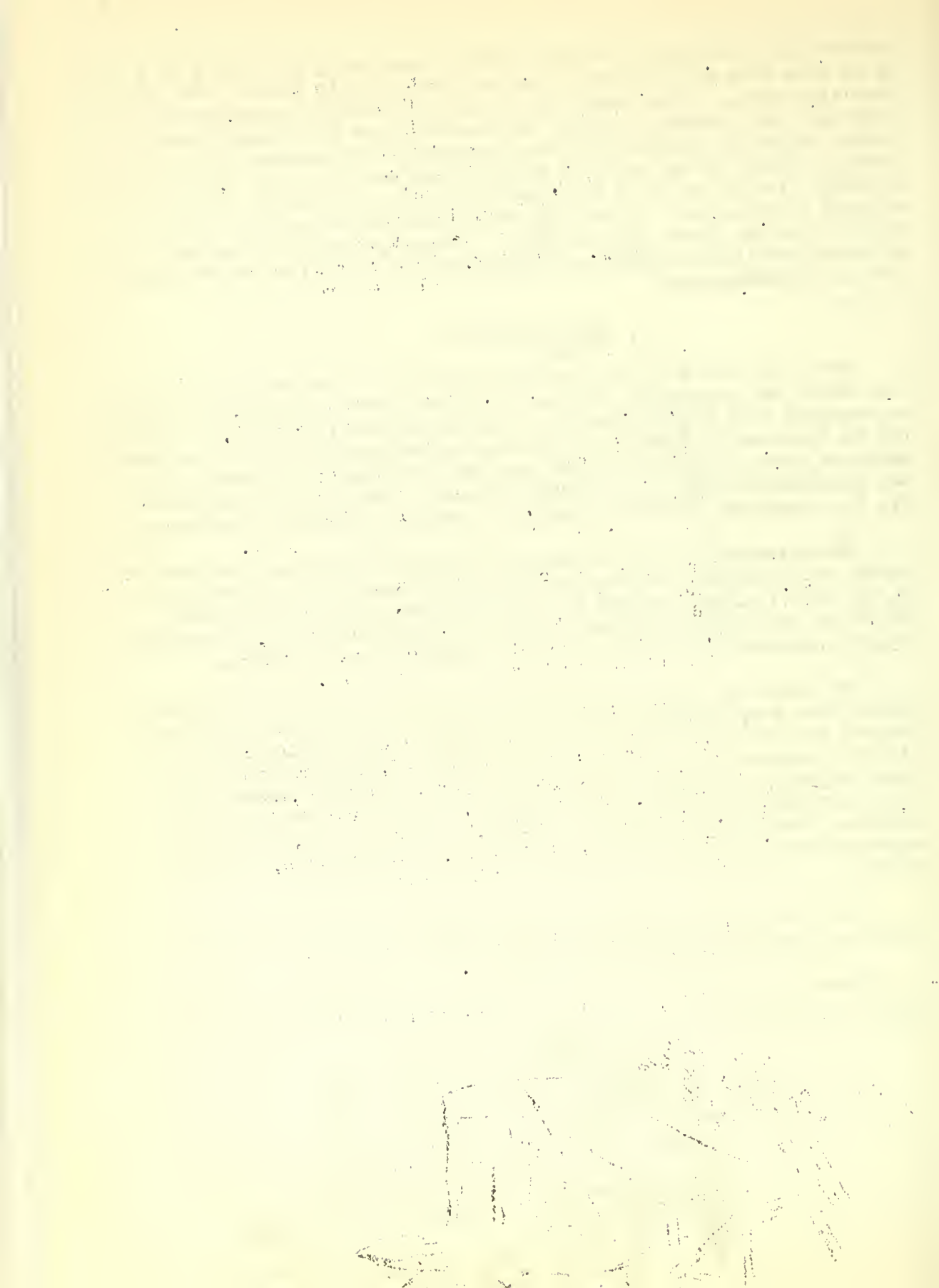
The automobile travel records for preceding seasons have been exceeded at the north, west and east gateways this year. A total of 54,953 auto visitors entered at the east gate, 60,375 at the west, 28,770 at the north and 11,481 at the south; grand total all gateways 155,579, exclusive of motorcycle and pre-season auto visitors.

The number of cars and visitors reported at the various developed public auto camp grounds during the season are indicated as follows: Mammoth 26,408 cars and 85,770 campers; Old Faithful 37,211 cars and 119,447 campers; Lake 29,581 cars and 94,555 campers; Canyon 24,755 cars and 79,464 campers; Norris 2,129 cars and 6,834 campers; Madison Junction 3,840 cars and 12,326 campers; Thumb 4,794 cars and 15,389 campers; Tower Falls 3,204 cars and 10,285 campers. In addition, approximately 13,000 campers used the many camping places along the roads.

The west entrance continues to lead in rail travel and it was also the favorite gateway for motorists this year.

There was an increase of 12,837 auto visitors over the record total of last year.





TOTAL SEASON TRAVEL BY ENTRANCES - 1927 AND 1926

1 9 2 7

	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:
ENTRANCE:	<u>RAIL</u>	<u>*BY AUTOMOBILE</u>	<u>BY MOTORCYCLE</u>						
	<u>Visitors:</u>	<u>Cars</u>	<u>Visitors:</u>	<u>Cars</u>	<u>Visitors:</u>	<u>Visitors:</u>	<u>Visitors:</u>	<u>VISITORS</u>	
North	: 13,772	: 9,485	: 28,770	: 41	: 52	: 340	: 1,330	: 44,264	
West	: #20,216	: 18,363	: 60,375	: 50	: 69	: 122	: 330	: 81,112	
East	: 7,588	: 17,324	: 54,953	: 95	: 122	: 230	: 0	: 62,893	
South	: 109	: 3,684	: 11,481	: 13	: 20	: 882	: 64	: 12,556	
TOTAL	: 41,685	: 48,856	: 155,579	: 199	: 263	: 1,574	: 1,724	: 200,825	

1 9 2 6

	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:
ENTRANCE:	<u>RAIL</u>	<u>*BY AUTOMOBILE</u>	<u>BY MOTORCYCLE</u>						
	<u>Visitors:</u>	<u>Cars</u>	<u>Visitors:</u>	<u>Cars</u>	<u>Visitors:</u>	<u>Visitors:</u>	<u>Visitors:</u>	<u>VISITORS</u>	
North	: 14,127	: 9,288	: 27,424	: 26	: 38	: 371	: 1,860	: 43,820	
West	: #18,951	: 14,862	: 48,768	: 57	: 68	: 164	: 1,062	: 69,013	
East	: 7,611	: 15,827	: 51,427	: 49	: 66	: 326	: 126	: 59,556	
South	: 271	: 4,349	: 13,830	: 14	: 22	: 1,257	: 38	: 15,418	
TOTAL	: 40,960	: 44,326	: 141,449	: 146	: 194	: 2,118	: 3,086	: 187,807	

*Includes 2,890 cars and 9,692 visitors who entered the park more than once during the season and 2,354 cars and 7,668 visitors entering more than once in 1926. By Automobile also includes 620 cars, pre-season, unclassified, in 1927 and 1,032 cars, pre-season unclassified, in 1926.

#The rail visitors accredited to the western gateway during the tourist season of 1927 consist of 17,157 via the Union Pacific Railway; 2,788 via the Gallatin Gateway of the Milwaukee terminal and 271 via the Bozeman terminal of the Northern Pacific, who also entered the park via the Gallatin Route. 813 rail visitors entered via the Milwaukee terminal at Three Forks, Montana in 1926.

ADMINISTRATIVE DEPARTMENT

Headquarters Office:- During the fiscal year from five to eight clerks were employed in the headquarters office on general correspondence, files, personnel, purchasing, timekeeping, miscellaneous financial matters, information, and a wide range of other duties relating to this and to other parks. This office continued to be the headquarters of the Assistant Director (Field) who is also the Superintendent of the Yellowstone. On March 1, 1927 Mr. Joseph Joffe was promoted to the position of Assistant to the Superintendent, vice E. A. Eckman.

Appropriations:- Appropriations made available since the date of the last report are as follows:

ACT	PURPOSE	AMOUNT
	Insect control.....	\$ 3,500
January	*Administration, protection and maintenance....	370,000
12,	Construction, sewers and camp grounds.....	30,000
1927	Road and trail construction.....	387,500
	Roads and trail surveys.....	20,900
	T O T A L.....	\$ 811,900

* \$8,000 reserved for Washington Office expenditures and \$4,000 as a budget reserve.

Of the 1927 fiscal year insect control funds, \$1,000 was transferred to Crater Lake National Park; \$16,774 was temporarily transferred to Glacier National Park to help defray the expenses of fighting forest fires. Funds allotted for Road and Trail surveys have been turned over to the Bureau of Public Roads for expenditure.

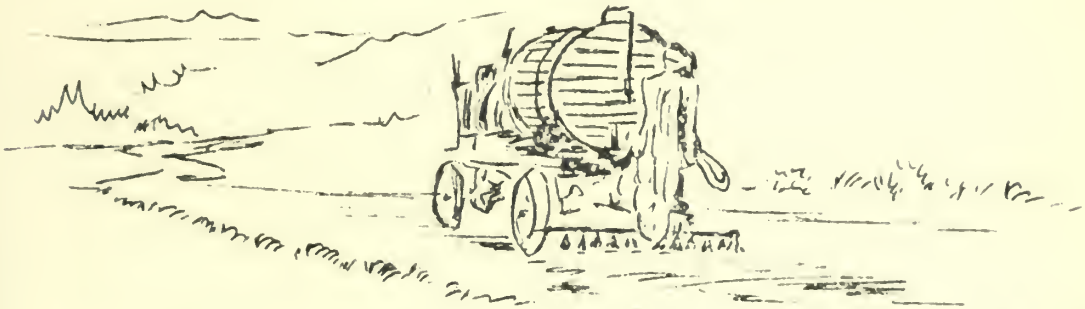
Revenues for 1927:- Funds collected during the fiscal year 1927 and deposited to the credit of Miscellaneous Receipts in the United States Treasury were as follows:

Franchise and permit fees.....	\$ 98,971.24
Automobile and motorcycle permit fees.....	125,328.00
Electric Current.....	4,946.95
Water rent.....	422.88
Miscellaneous.....	1,195.64
T O T A L.....	\$ 230,874.69

ENGINEERING DEPARTMENT

This department is in charge of Resident Engineer Merrill F. Deam, aided by Assistant Resident Engineer Cecil A. Lord.

Road Maintenance:- The park road system consists of 302 miles of road designated as follows: Grand Loop 140.7 miles, approach and connecting roads 79.1 miles, secondary and roads to points of interest 81.5 miles. During the 1927 season 302 miles of park road, 28 miles of road in the Shoshone National Forest and 30 miles of road in the Teton Forest were maintained by nineteen crews, made up of 110 men and 30 teams, with 8 small gravel trucks, and 7 1-man power graders as equipment instead of horses and dump wagons and horse-drawn graders. This year a new method of road maintenance was attempted with great success. The motorizing of the equipment made it possible to keep the road much smoother and in much better shape. The use of heavier graders and tractors for early spring maintenance has contributed to this condition as well. This year we have added 7 one-man power graders, Fordson power, 6 one yard dump trucks, and one 75 Holt tractor to our maintenance equipment.



Dust Prevention:- Another innovation in our maintenance work was the substitution of a light road oil as a dust layer instead of water, a much more efficient method although more costly. 126 miles of the main loop and entrance roads were oiled with from 1/9 to 1/2 gallons per square yard. The old wooden tank trucks were used to haul the oil from tank cars to the distributor and some 20 of the wooden storage tanks were set up and used to store the oil. The water sprinkling system is being dismantled as rapidly as possible, as the tanks were an eyesore along the road. Four of the steel ammunition bodies that came with the trucks from War surplus were covered with steel plates and welded and mounted on trucks and used to haul oil. Nine tank trucks and one distributor truck were used during June, July and part of August in transporting and spreading approximately 300,000 gallons of road oil.

Snow Removal:- Due to the heaviest snowfall in years, more than 15 tons of explosives were used in clearing snow from Sylvan and Dunraven Passes, the Mt. Washburn loop and the south entrance road. Sylvan and Dunraven Passes were open to traffic June 19th and the Mt. Washburn loop and the south entrance roads were open to traffic on July 1st.

Bridge Maintenance:- The seven span log bridge across the Lewis River and two other small bridges on the south entrance road were rebuilt this year after the snow load had broken them down. The Yellowstone River bridge near Tower Junction was redocked and several other bridges have been repaired temporarily until they can be replaced.

Road Improvement:- The road improvement projects under our three-year building program which were unfinished last year have been completed or are nearing completion and in addition we have started construction of roads under the new five year program. The road projects which have been completed during the past year or are nearing completion are:

Project No. 1-C, Firehole Cut-Off:- Two miles of construction through the Firehole Canyon, one of the scenic attractions of the park. This road will be completed this season.

Project No. 5-C, Cub Creek Section of the East Entrance Road:- Six miles of reconstruction. The clearing and roadside cleanup of this road was started last fall by park forces. On July 12th the Bureau of Public Roads let a contract for the building of this section of road and the contractor started work in August. The project will not be completed this year.

Project No. 6-A, West Gallatin Road:- Reconstruction of eight miles of the road from the Gallatin ranger station south. The Bureau of Public Roads let a contract for this work August 9th and the contractor has started work. The project will not be completed this year.

Project No. 9-A, Inspiration Point Road:- This job was surfaced this year and is completed.

Project No. 1-G, Canyon Junction-Tower Junction:- New construction of 8,000 feet of road from Grand View on the Inspiration Point road to near the two-mile post on the old road to Dunraven Pass to eliminate bad grades, curvature, and the unsightly conditions along the old road near the Canyon Hotel. This work is being done by park forces and will be completed this year.

Project No. 1-A, Mammoth-Norris Junction:- Reconstruction of the worst features of the present road. This work is being started this year.

Project No. 3, Madison Junction-West Yellowstone:- Reconstruction of the worst features of the old road. This work is being started this fall.

Processing:- This work consists of using the California method of oiling our sand and gravel roads and producing a three inch mat pavement similar in appearance to penetration macadam but costing only a fourth as much. This work is in the experimental stages and consists of the laying of about two miles of this type of pavement.

Buildings:- Two mess houses and bunk houses have been constructed for road camp crews at Thumb and Canyon. Two stables have been built at Old Faithful and Tower Junction. The front row of residences at headquarters have been painted and the color changed from white to gray, a color that is much more pleasing to the eye. Four new snowshoe cabins have been erected. These buildings are one-room log structures of

uniform design; they are attractive in appearance, securely and stoutly built and splendidly adapted to the uses intended. They are located at Pawn Pass, Crystal Spring, Mary Lake and Shoshone Lake. The Crystal Spring cabin is 16 x 18 feet; the others are 12 x 14 feet. A new hay and horse barn has been built at the Buffalo Ranch, dimensions 30 x 50 feet, and two stories high, and a new horse shed and corral has been erected at the Yancey Ranch. The shed is 160 feet long and 14 feet wide. The entire inclosure including the corral, which is 7 feet high, covers an area of 15 x 125 feet; the frame work of the shed is made of logs and is also log trimmed.

LANDSCAPE ENGINEERING

The landscape and planning problems of Yellowstone Park were thoroughly covered in the autumn of 1926 by Landscape Engineer T. C. Vint, and during the current summer by Mr. Vint and Assistant Landscape Engineer E. A. Davidson. Mr. Davidson supervised important planting at headquarters in the Mammoth auto camp and at the Gardiner transportation plant. Mr. Vint approved plans for many company buildings and selected sites for them. He also planned several Government buildings and located them. He devoted considerable time to vista marking on the Lake Shore Road. Both landscape men worked on maps of camp grounds, and the Civil Engineering Division made a topographic map of the Canyon Auto Camp. Roadside cleanup was continued with funds contributed by the eastern friend of the park who inaugurated this splendid project in 1924. From West Thumb northward three and one-half miles of the roadsides were cleaned and one mile north of Lake Junction was similarly treated. Another section cleaned under this program was south of Canyon Hotel Junction $2\frac{1}{2}$ miles toward the Lake. The remaining section of two miles between Mammoth and Norris Junction was completed except for burning. Roadside cleanup with road construction funds included the Inspiration Point Road, $2\frac{1}{2}$ miles of the Lake Shore Road, and as much of the Firehole Cut-Off as was completed. There were also two miles of road on the Cub Creek section of the east entrance road cleared and roadsides cleaned. Our planting, vista cutting and roadside cleanup work has greatly improved the park landscape and is noticed by everybody.

Much landscape work was accomplished by the park operators in addition to the planting around the transportation buildings at Gardiner. This included the wrecking of the old Fountain Hotel and Norris lunch station, the salvaging of usable lumber and cleaning up of the sites.



1. The first part of the paper is devoted to a general discussion of the problem of the origin of life. It is shown that the problem is one of the most important and interesting in the history of science, and that it has been the subject of many theories and hypotheses. The author then proceeds to discuss the various theories and hypotheses, and to show that the most plausible one is the theory of spontaneous generation.

2. The second part of the paper is devoted to a detailed discussion of the theory of spontaneous generation.

The author shows that the theory of spontaneous generation is based on the fact that life is a complex phenomenon, and that it is not possible to explain the origin of life by the action of a few simple factors. He then proceeds to discuss the various factors which are thought to be necessary for the origin of life, and to show that the theory of spontaneous generation is the only one which is able to explain the origin of life in a satisfactory manner. The author also discusses the various objections to the theory of spontaneous generation, and shows that they are all unfounded.

The author concludes his paper by stating that the theory of spontaneous generation is the only one which is able to explain the origin of life in a satisfactory manner, and that it is therefore the most plausible theory. He also states that the theory of spontaneous generation is the only one which is able to explain the origin of life in a manner which is consistent with the facts of the case.

SANITATION DEPARTMENT

This department, in charge of the master plumber, cooperated closely with the engineering department in construction work.

1. Public Auto Campground Development:- Mammoth. - Built 48 tables, painted inside of shower and laundry and stained roofs of comfort stations. Protected and planted trees.

Tower Falls - Built 20 tables, 4 earth toilets and protected trees. Installed 100 feet 4-inch, 1,000 feet 3-inch, 4,000 feet $2\frac{1}{2}$ inch and 50 feet $\frac{3}{4}$ inch galvanized iron water pipe. Constructed concrete dam 20 feet long with 10-foot wing walls across Antelope Creek.

Canyon - Built 200 tables and 2 comfort stations, including 16 flush toilets, 2 urinals and 4 lavatories. Constructed 24-foot log bridge connecting two camps. Laid 1,200 feet of 6-inch sewer and 1,000 feet 2-inch galvanized iron water pipe. Rebuilt sludge bed for sewerage disposal plant. Built new chlorine house, size 6 x 10 feet and laid a new concrete floor in old comfort station which was damaged by frost.

Old Faithful - Built 40 tables and extended driveways. Excavated for and laid 650 feet of 6" tile sewer, 1,800 feet $2\frac{1}{2}$ inch, 2,000 feet two-inch and 300 feet $\frac{3}{4}$ inch galvanized iron water pipe. Built two comfort stations, including 16 flush toilets, 4 lavatories, 2 urinals.

Mammoth Water and Sewer System:- Constructed two new manholes in water sewer system. Built new concrete wall 80 feet x 10 feet 8 inches at reservoir which supplies Mammoth with potable water.

2. Mosquito Control:- The mosquitoes were numerous throughout the entire park due to exceptional moisture. Extensive ditching and oiling was done at Mammoth, Tower Falls, Canyon, Lake, West Thumb and Old Faithful.

3. Garbage and Refuse Disposal:- Constructed incinerator at Old Faithful for burning the garbage from the Hotel, Lodge and auto camp. Dump grounds cleaned up. Garbage not eaten by bears, and paper, trash and wood burned.

4. Miscellaneous:- Operated 6 septic tanks with chlorinators and 4 without. Supervised the operation of 2 swimming pools. Built 16 earth toilets and made new water supply investigations for the Canyon and West Yellowstone.



PROTECTION DEPARTMENT

The permanent personnel of this department consists of the Chief Park Ranger, Sam T. Woodring, 4 Assistants Chief Ranger and 26 park rangers, a total of 31. There were two vacancies in the permanent personnel at the opening of the 1927 tourist season which were filled by temporary appointments. Fifty-four temporary rangers entered on duty for summer season service on June 16th. There was a total of 90 rangers in service during the tourist season.

Winter Activities:- The fall, winter and spring season activities have consisted principally of regular and special patrols for the observation and protection of wild life and the natural features of the park, the capture and shipment of buffalo and elk, predatory animal hunting, repairs and maintenance to telephone lines, buildings and equipment, trail maintenance and repair, observing and reporting weather conditions and water gage heights in cooperation with the Weather Bureau and the Water Resources Branch of the U. S. Geological Survey. Other activities have consisted of wild animal feeding at the various hay ranches and the care and feeding of the Park Service and ranger horses at their winter feed grounds.



Summer Season Activities:- The principal activities during the tourist season have consisted of the following: Checking entrance and exit travel, traffic regulation and control, information and communication service, guide and lecture service, report compilation, forest patrols, trail construction, maintenance and repair, snowshoe cabin construction, informing and assisting the traveling public and safeguarding the wild life and natural features of the park.

Forest Fires:- There has been no serious fire hazard at any time during the year and only seven small fires occurred. The damage was negligible in each instance. These fires were promptly observed and quickly extinguished by members of the ranger service; there was no loss of property or expense involved.

Trail Construction, Maintenance and Improvement:- New trail construction during the past year has consisted of the following: 4 miles in the vicinity of Mammoth Hot Springs and 1 mile in the vicinity of Tower Falls. These extensions of the trail system are known and designated as nature trails. Ten miles of new trail was also constructed along Clear Creek, extending from the Sylvan Pass road at Sylvan



Lake to the Upper Yellowstone trail along the east shore of Yellowstone Lake. The total trail mileage, exclusive of game trails used by rangers on patrol, is approximately 886 miles. The entire trail system has been cleared of down timber and repaired.

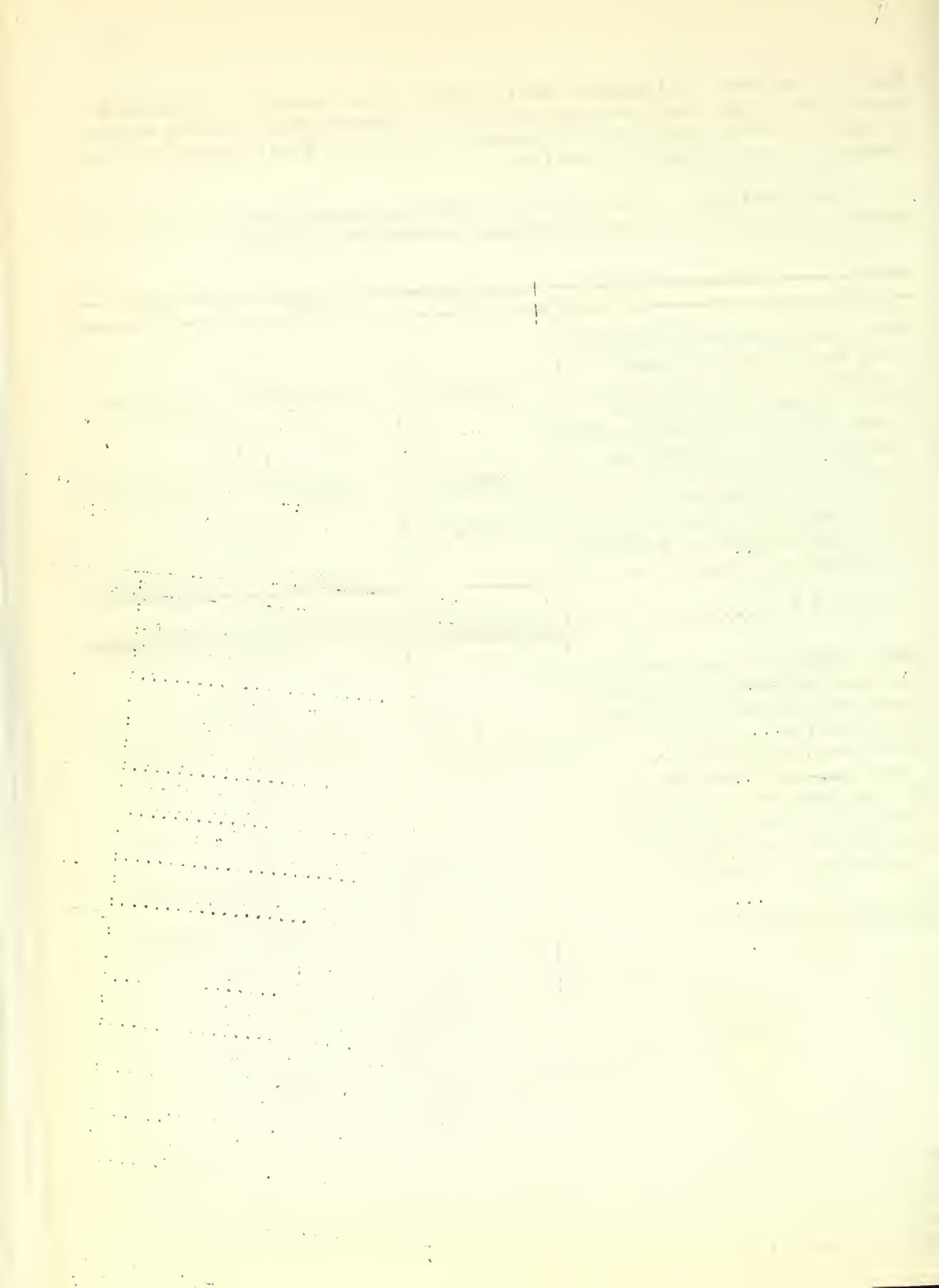
Fish Planting:- Fish planting activities during the year with comparative figures for 1925 and 1926 are reported as follows:

	1925	1926	1927
Total collection of black spotted trout eggs from park waters.....	11,748,000	17,000,000	13,313,000
Number of eggs collected in park, hatched and returned to park waters or planted as eyed eggs.....	4,336,760	5,891,000	5,113,000
Total fish shipped to outside points.....	6,726,000		
Total eggs shipped to outside points.....		8,494,000	5,983,000
T O T A L.....	11,062,760	14,385,000	11,096,000
Total number of fish planted in park waters.....			
Black spotted trout collected in park.....	4,336,760	5,891,000	5,113,000
Brook trout received from Bozeman, Mont. hatchery.....	50,000		37,750
Rainbow trout received from Bozeman, Mont. hatchery.....			52,500
Rainbow trout received from Saratoga, Wyo. hatchery.....			16,000
TOTAL FISH PLANTS FOR THE YEAR	4,416,760	5,891,000	5,219,000



BUFFALO RANCH OPERATIONS

The activities at the buffalo ranch during the year have consisted in part of the care and keep of the herd, the erection of a new hay and horse barn, dimensions 30 x 50 feet, and 2 stories high. Other activities have consisted of repairs and maintenance of buildings, corrals, fences, ranch machinery and equipment and harvesting of the 1927 hay crop, which is estimated at 577 tons.



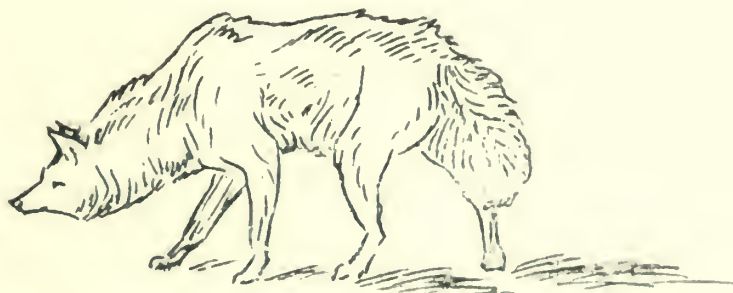
Thirteen buffalo were captured and crated for shipment during the year, consisting of 5 cows, 2 bulls and 6 calves. Fourteen steers were slaughtered and sold for food purposes and 8, consisting of 4 males and 4 females, were destroyed because of advanced age or other infirmities. 835.77 tons of hay were fed at this point during the year, leaving a balance of approximately 150 tons which, together with the 1927 crop, makes a total of 727 tons now on hand for use during the approaching winter season.

HAY RANCH OPERATIONS

Wild animal and horse feeding at the Slough Creek, Yancey and Gardiner Ranches during the year accounted for 359.66 tons of hay. There was comparatively little wild animal feeding at these points. The balance on hand of the 1926 hay crop is 389.74 tons. The approximate yield this year at the above named ranches is 449 tons. Other activities have consisted of maintenance and repairs to buildings and equipment and the erection of a new horse shed and corral at the Yancey Ranch. The shed is 160 feet long and 14 feet wide. The entire inclosure, including the corral which is 7 feet high, covers an area of 150 x 125 feet. The frame work of the shed is made of logs; it is also log trimmed.

PREDATORY ANIMALS

Two hundred and thirty-eight coyotes were destroyed during the year, as compared with 243 last year, and 160 during the year next preceding.



NATURAL FEATURES OF THE PARK

Observations of wild life, geysers and hot springs activities, forests and plant life have been made by the park naturalist and by rangers throughout the year and are reported briefly as follows:

Wild Animal Conditions:- Wild animal and forage conditions have been good.

Buffalo - Lamar River Herd:- The herd total on May 31st, exclusive of the 1927 calf crop, was 815, consisting of 228 bulls, 176 steers and 411 females, which, together with the 1927 calf crop, consisting of 121, makes a grand total of 936 buffalo in the Lamar River herd at this time. There was a reduction of 41 in the herd total



during the year, consisting of a loss of 6 from natural causes, 8 were killed because of advanced age or other infirmities, 12 steers were slaughtered and sold for market purposes and 15 were crated and shipped to public parks, zoos and private estates for exhibit and stocking purposes. The animals shipped consisted of 2 bulls, 3 cows, 2 male yearlings, 2 female yearlings, 2 male calves, and 4 female calves.

Buffalo - Cold Creek-Pelican Creek Herd:- The largest count of this herd secured in recent years was submitted in December, 1926. The total of this count was 72, which shows an increase by actual count of 7 over the count submitted last year. The herd total is estimated at 125.

Mountain Sheep:- Actual counts submitted during the winter and spring seasons total 346 as compared with 217 last year and 125 during the year next preceding. The estimated total within the park is 650. The reported losses during the year totaled 16. Six died from natural causes and 10 were killed by hunters in areas adjacent to the park.



Antelope:- The largest count secured during the year was 641 as compared with 497 last year and 417 during the year next preceding. Herd conditions are excellent and the annual increase this year should bring the herd total to approximately 700. The losses during the year were in excess of normal; they are listed as follows: killed by coyotes 5, accidentally killed 1, and a loss of 12 from natural causes, total 18. For the first time in years Wyoming has authorized an open season on buck antelope and 100 licenses have been sold. Most of the antelope killing will be distant from the park and no Yellowstone antelope will be affected.

Moose:- The largest count of the park winter season was submitted in November 1926. The total of this count was 73, which does not compare favorably with the maximum count of 103 submitted in 1926, and 170 in 1925. They are more generally distributed, however, over the entire park area than ever before and although there has been an apparent decrease during the past two years there is believed to have been a moderate increase in the total number of moose in the park. Herd losses have occurred during the year as follows: One from natural causes and one from accidental causes within the park; 25 were lawfully killed by hunters in the State of Wyoming, 11 were unlawfully killed by hunters in the State of Montana and 2 were unlawfully killed by hunters in the State of Idaho, at points adjacent to the park, total 40. There is an

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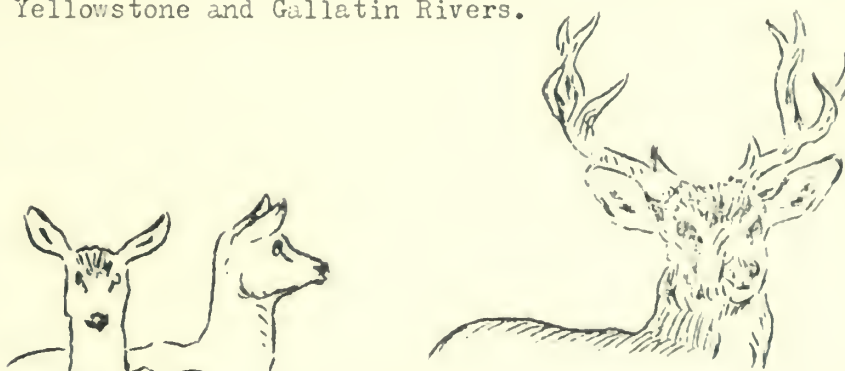
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estimated total of 600 in the park at this time. Moose conditions in the park are excellent. Wyoming game officials have authorized moose to be killed in the State this year. We regret to report that the State will again permit the killing of moose in the Upper Yellowstone country outside the park.

Deer:- The largest count secured during the year was 683, as compared with 798 last year and 602 during the year preceding. Losses have been reported as follows: Lawful kills by hunters in areas adjacent to the park 105, unlawful kills by hunters 5, losses from accidental causes 7, killed by coyotes 16, winter kills and losses from natural causes 38, total 171. Deer conditions are excellent and there is an estimated total of 1,875 mule deer in the park and at nearby points along the Yellowstone and Gallatin Rivers.



Elk:- Weather and forage conditions during the past year have been generally favorable and winter season losses have not been very greatly in excess of normal. All reports indicate a large calf crop this year. Special counts of the Yellowstone elk herds were made late in February by the Chief Park Ranger and his assistants. Members of the Forest Service and the State Fish and Game Department of Montana also assisted with the counts. The actual counts as submitted are noted as follows: Total counts within the park 9,807, counts on areas north of park boundary along the Yellowstone River 3,236, grand total of actual counts 13,043. Ten per cent was added to the total of the actual counts as a reasonable allowance for all that escaped observation, the amount of this addition being 1,304. The estimated total of the Gallatin herd, based on careful observations and partial counts at frequent intervals throughout the winter, is 3,000. The grand total of the actual counts and estimates at the close of February 1927 was 17,347. This count does not include the Jackson Hole herd. Herd losses during the year are noted as follows: Killed by hunters in hunting areas adjoining the park 1,059, losses resulting from accident 5, killed by coyotes 5, winter kills including losses caused by tick infestation 548, shipments to game preserves, public parks and zoos 107, total 1,764. Most of these losses occurred prior to the counts submitted herein. The latest count of the Jackson Hole elk as secured by representatives of the Forest Service, Biological Survey and State of Wyoming in February and March 1927 was 19,238. They also report that approximately 900 were legally killed by hunters in this region during the hunting season terminating on November 15, 1926.



Forage conditions in the park have been generally good throughout the year except in the Mammoth-Gardiner, Slough Creek and Buffalo Ranch districts during January and February. Unusual snow depths, wind crust on all exposed ridges, together with high winds and low temperatures made artificial feeding necessary at these points at intervals during this period. Approximately 300 tons of hay were fed. There is a balance of approximately 500 tons of old hay available for wild animal feeding next year which, together with the new hay crop of about 1,026 tons, makes a total of 1,526 tons on hand for use during the approaching winter season, but it is believed that the range has adequate forage for all the requirements of the elk. Herd and forage conditions are unusually good at this time.

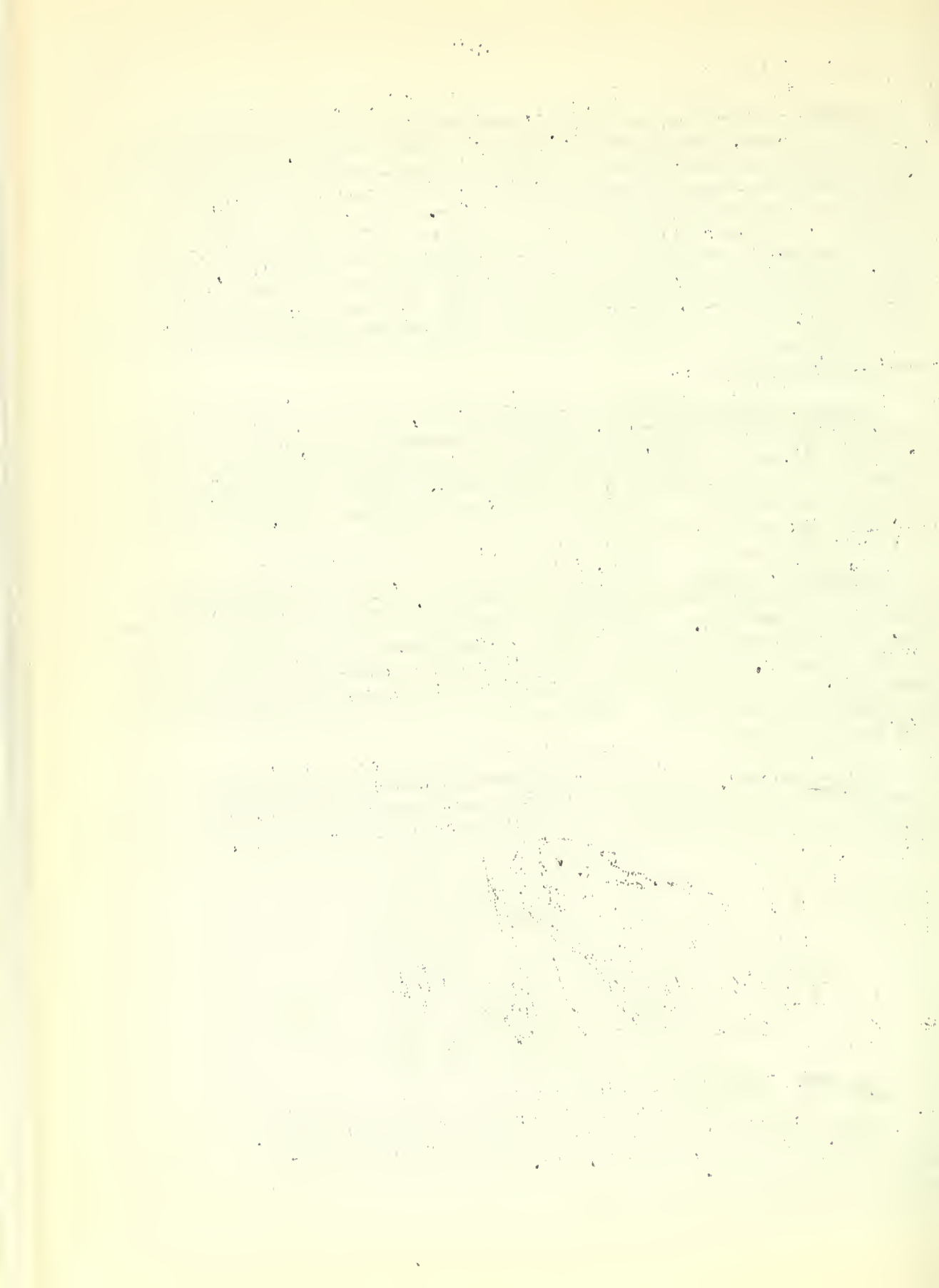
Bears, Black and Brown:- Recent counts of the bears of this species are noted as follows: Old Faithful District 20, along Old Faithful to Thumb highway 8, Thumb Station 7, Thumb to Lake Highway 10, Lake District 30, Canyon District 65, Tower Falls District 22, Mammoth District 12, total 174. This total includes 41 cubs. The total number of black and brown bears in the park is believed to be about 275.

Bears, Grizzly:- Recent counts of bears of this species are noted as follows: Canyon District 53, Lake District 11, Old Faithful District 10, total 74. This total includes 22 cubs. No recent counts have been had on the bears of this species known to frequent the more remote districts of the park. The estimated total for the entire park area is 100. The counts on the bears of both species shows a marked increase over last year. They are the principal wild animal attraction for park visitors.

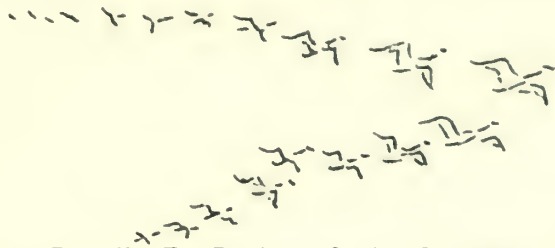
Beaver:- There has been no apparent decrease in beaver activities throughout the park; some old workings have been abandoned but many new workings have been observed. The range of their activities is increasing from year to year and there appears to be an increase in their numbers.



Other Small Animals:- The following named fur bearing animals have been seen in abundance by rangers on winter season patrol: Marten, mink, weasel, and skunk; otter and fox have also been frequently observed. Woodchucks, porcupines, badgers, etc. are numerous and widely distributed throughout the park.



Migratory Birds:- Ducks and geese have been abundant on all the lakes and streams. Swans have appeared at intervals along the Yellowstone and Firehole Rivers and sand hill cranes have been occasionally seen. Counts of water fowl will be made hereafter on a fixed date each month of the year. Reports of these counts will be submitted to the Bureau of Biological Survey pursuant to a cooperative agreement.

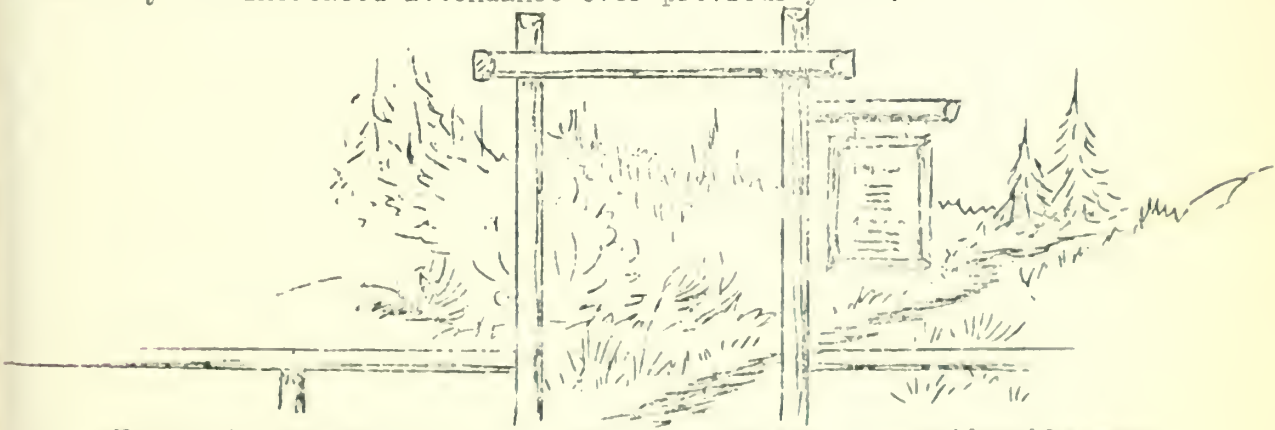


Trees and Insects:- Dr. H. E. Burke of the Bureau of Entomology has been in charge of forest insect control work in the park this year. He has designated several small areas of infested trees at points on the loop road which will be cut and burned early this fall. A considerable number of Douglas fir trees have been killed by the Douglas fir beetle in the vicinities of Crescent and Garnet Hills and Hellroaring Mountain. It appears that the infestation has spread from the old budworm areas. There are indications, however, that the epidemic is waning as many of the broods in the infested trees have died before reaching maturity. A few lodgepole needletyer caterpillars can be found throughout the Madison Basin. Forest insect conditions in the park are materially improved but it will be necessary to spray the trees again next year and a large number of trees infested with the Douglas fir bark beetle and other beetles will have to be treated during the coming autumn and in the spring of 1928. It is hoped that after next year it will not be necessary to spray, thus cutting down the cost of insect control in this park.

GEYSERS AND HOT SPRINGS

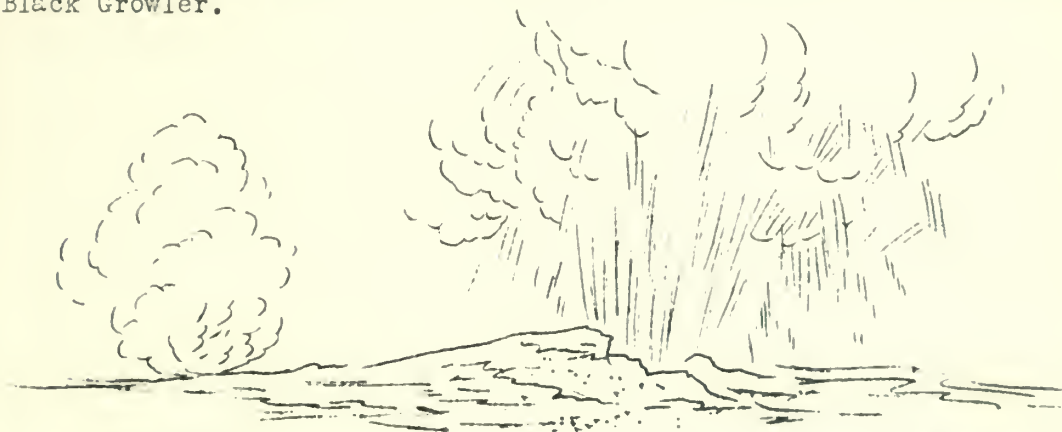
Mammoth Hot Springs:- During October, November and December of last year there was a gradual cessation of activities over the entire hot spring region at Mammoth. In October the springs at the higher levels disappeared, one by one, and by the end of November, Angel, White Elephant, Soda Spring, Bath Lake, the east end of Mound Terrace, Cleopatra and Minerva Terraces were entirely dry. This is the first time in the history of the park that Bath Lake and Soda Spring have been dry. Bath Lake has remained dry and the water which used to furnish Soda Spring now emerges through two openings to the east of the old well which has been torn down as unsightly. The first of December marked the time of least activity in this vicinity for, during that month, the last two mentioned terraces, Cleopatra and Minerva, again commenced to flow. However, it was not until January that New Highland ceased entirely to operate and it has not shown any signs of renewed activity since. Immediately after the tourist season of 1926 a large, vigorous spring broke through the travertine above Jupiter and this has persisted throughout the intervening months. Other small orifices have opened on this same bench level but their lives have been short and their presence has not affected the large, steady flow of water in the new one which is located

about sixty paces northwest of Canary Spring. Both this and the main spring at the top of Jupiter Terrace were affected slightly by the prevailing dryness in late November and December but these two and the easternmost spring at Hymen Terrace were, at the end of November, the only active ones in the whole vicinity. As early as the last of December and January there was an increase in the general activity of the region but this did not become particularly marked until March. On the first of April it was possible to make observations on foot but up to that time all trips over the terraces had to be made on skis. Very careful examinations were made each month all winter for the long-eared bats which have been reputed to remain all winter in the warm Devil's Kitchen and none were seen until early in June. In the early spring many birds and mice were found smothered by carbon dioxide in the warm caves and hollows in the vicinity of Stygian and Stalactite Caves and the White Elephant. Elk, deer, jack rabbits and snowshoe rabbits were encountered on the terraces all winter and very early in the spring birds were seen feeding in the warm areas. In June activity was resumed at a point on Old Angel Terrace which had been dead for a number of years and this has gradually spread until now it is quite extensive and beautifully colored by living algae. During the 1927 tourist season the terrace trail has been thoroughly policed and kept in excellent condition by the formation guards. New signs explaining the various features have been painted and placed by the Naturalists' Division. The Geophysical Laboratory of the Carnegie Institution of Washington, D. C. has been studying deposition of travertine by the various waters. The hot springs activities on the upper levels of the terraces have been somewhat below normal during the year but this deficiency has been more than compensated by the showings made by Jupiter, Mound and Hymen Terraces. The guide parties over the formations at Mammoth have been more popular than ever this year as indicated by the increased attendance over previous years.

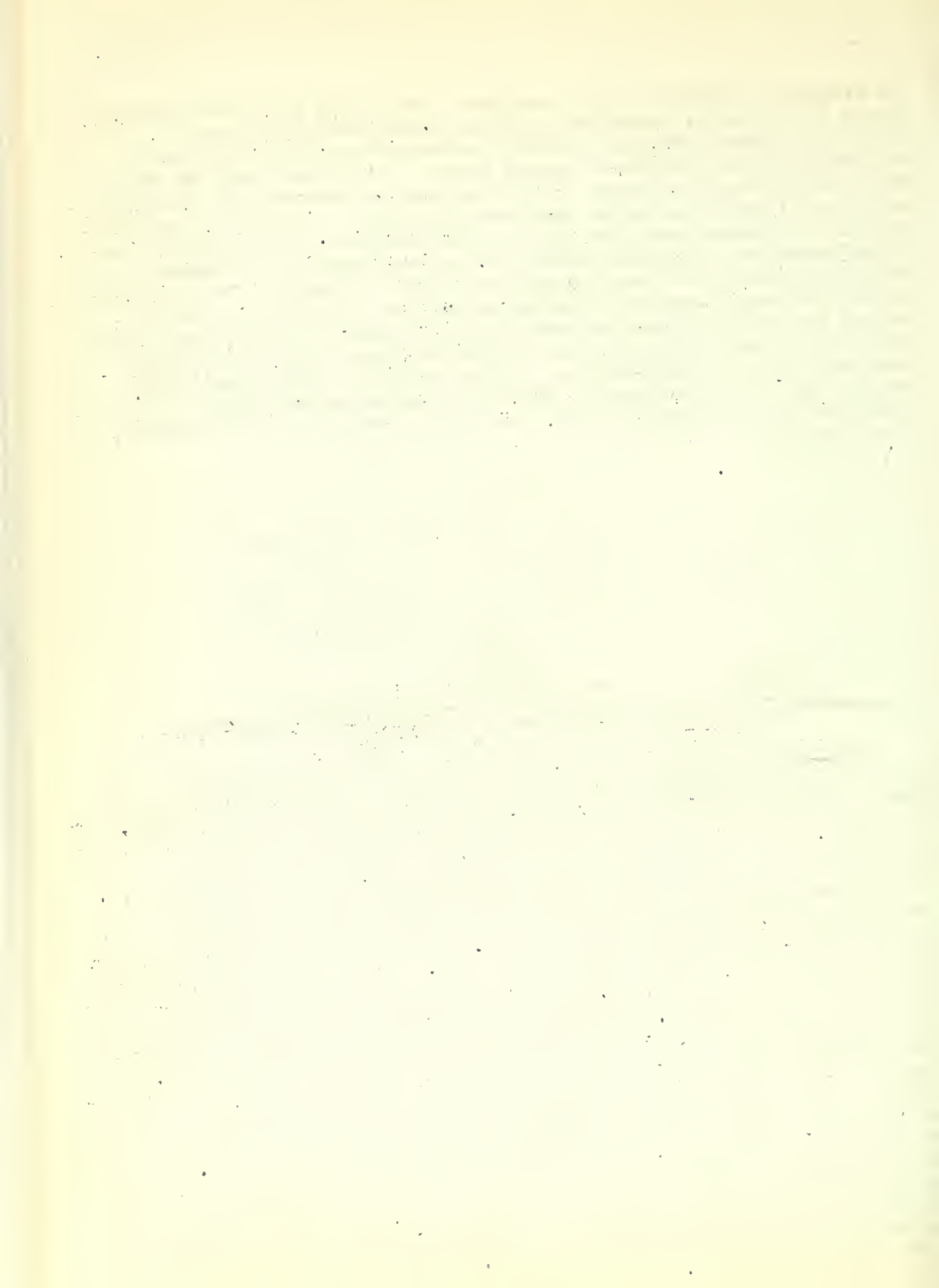


Morris Geyser Basin:- There were no changes of considerable magnitude at this basin during the year but there were enough developments to sustain its reputation as the most shifting and variable of all the thermal regions of the park. Constant Geyser has been very irregular in its activities; very few eruptions were observed during the entire winter season but it displayed considerable activity during the first week of July when it played at 3 minute intervals for several days.

Its eruptions have since been irregular. Whirligig is the most active geyser in the basin; there has been very little variation from its regular 20 minute intervals although the duration of its eruptions are noticeably shorter in winter than in summer. There was only one observed eruption of Mud Geyser during the year as compared with frequent and powerful eruptions during the year preceding. Valentine plays at irregular intervals every few days. Minute Man displayed unusual vigor in September, was irregular during October and November and dormant during December except for vigorous boiling at the vent. Its activities during the summer have been somewhat irregular. Onyx Spring and two unnamed geysers near Constant have displayed unusual activity throughout the year. Ebony Spring has also played with exceptional frequency. Coral and Vixen are very active. Their eruptions, though small, are frequent and show much vigor. There has been no marked change in the activities of New Crater or of the heat and pressure of the steam vent Black Growler.



Upper Geyser Basin:- Giantess erupted on the following dates during the year: September 14th, December 29th and on July 30th and 31st. All eruptions were characterized by great power and vigor, particularly the activities on the last named dates when it was constantly in action for a period of more than 24 hours. Giant erupted on October 20th but was inactive during November, December and January. Its next observed eruption was on February 4th which was followed by a period of quiescence until July 9th. Since this date it has erupted on July 29th, August 3rd, 5th and 20th. No changes have been observed in its power and volume. Grand has been in action at intervals ranging from 8 to 15 hours. Its winter season activities are more irregular in point of time, power and volume. It normally plays to a maximum height of 200 feet. Old Faithful played at intervals ranging from 63 to 68 minutes during September, October, November and December. Low ground water shortened durations of play during January, February and March. The average interval in March was 68 minutes as compared with 63 minutes in July. The only observed eruption of Beehive during the fall, winter and spring seasons occurred on September 14th. It has been reported in action only twice during the tourist season. These eruptions occurred on August 6th and 20th. On both occasions it played to the approximate height of 200 feet and the interval of play on August 6th was about 6 minutes. Castle played with great power and unusual frequency in September and October. This activity was



followed by its longest period of weak action in recent years. During March, however, it was the most active geyser in the basin and two powerful eruptions occurred within a period of 14 days. Its summer season activities have been normal. The Lion group showed much vigor at intervals during the winter, particularly during October and January. There was very little activity during February and March but their summer season activities have been normal. Daisy, Riverside, Sawmill, Oblong, Grotto and Lone Star have shown very little variation for their normal activities. There has been no apparent change at Black Sand or Biscuit Basin during the year, except that Handkerchief Pool has been inactive since early in the season. The most inactive period of the year at the Geyser Basins was during the months of February and March, but it in no way equaled the exceptional irregularity of geyser action during February and March of the preceding winter. No marked changes have been observed in the thermal activities at Thumb of Yellowstone Lake.

Lower Geyser Basin:- There is very little change in Mammoth Paint Pots from one season to another except that they are more attractive in winter than in summer on account of more uniform surface moisture which keeps the mud from drying and becoming hard. The only observed eruption of Fountain Geyser since midsummer 1925 occurred on March 20th this year. It lacked much of the power and vigor of the displays of previous years. All observed eruptions of Great Fountain have been normal in point of time, power and volume. It is the second largest fountain geyser in the park and is in many respects the most attractive. It erupts at comparatively regular intervals of about $10\frac{1}{2}$ hours. Clepsydra and Black Warrior have displayed their usual power and vigor in all observed eruptions during the year. White Dome is comparatively feeble and inactive. There have been no marked changes in the formation or thermal activities at Midway Basin (Excelsior Geyser). It has been observed with interest, however, that the colors of Prismatic Lake are affected by the seasonal changes of temperatures. The brilliant red of the rim in summer is replaced by browns and greens during the winter season.

INFORMATION DEPARTMENT

A total of 57,438 people visited the Information Office at park headquarters during the season. Compare this total with 32,894 during the season of 1926, and 35,568 during the season of 1925. A total of 101,330 free Government publications were distributed at the Information Office and ranger stations during the year and 5,906 Government publications, including 1,486 portfolios were sold. Compare this total sales with 6,636 Government publications, including 1,058 portfolios disposed of last year. In addition 858 books of other publishers were sold.

Lecture Service:- This service at Mammoth Hot Springs consisted of three lectures each evening before audiences totaling approximately 47,615. Lectures were similarly conducted at Old Faithful, Lake, Canyon and Tower Falls and were attended by approximately 126,567 persons. At Old Faithful, 18,855 at Lake, 20,585 at Canyon and 2,047 at Tower Falls, as compared with 58,532 at Mammoth Hot Springs, 54,852 at Old Faithful, 19,567 at Lake, 14,168 at Canyon and 783 at Tower Falls last year.

Guide Service:- Two regular guide parties were conducted twice daily over the formations at Mammoth Hot Springs and Old Faithful. Special guide service has also been furnished at these points upon request. Nature guide service was also conducted on regular schedules at Mammoth Hot Springs, Old Faithful, Yellowstone Lake and Tower Falls. The season total of all guide parties during the season of 1927 is noted as follows: Mammoth Hot Springs 13,623, Old Faithful 32,906, Yellowstone Lake 5,295, and Tower Falls 1,067, total 52,906, as compared with 11,496 at Mammoth Hot Springs, 1,404 at Madison Junction, 32,920 at Old Faithful, 6,992 at Yellowstone Lake and 1,193 at Tower Falls, total 54,085 last year.

ELECTRICAL DEPARTMENT

Electric System:- The following table shows the total production of the power plant and disposition of current as compared with similar data for the fiscal year 1926.

The peak load for the year was 236 kilowatts as compared with 204 kilowatts last year.

	1925-26	1926-27
Total production in kilowatt hours.....	684,290.00	702,092.00
Sold to park operators.....	96,318.00	92,892.00
Consumed for street lighting.....	26,596.00	28,173.00
Balance, consumed by Government buildings, for power and lighting, lost on lines, etc.	583,374.00	581,028.00

Rebuilt 1/2 mile power line with new cedar poles. Wired two sets living quarters; rewired 5 sets living quarters, changing wiring from open work to molding; wired 2 comfort stations for lights in auto camps; wired and connected up 6 electric hot water heaters in living quarters at Mammoth.

Telephone System:- Thirteen miles of telephone line were rebuilt between Bechler River and Snake River - one wire strung on trees. Forty miles of telephone line were built between Lake Station and Upper Yellowstone for fire protection - one wire strung on trees. The Yellowstone Park Hotel Company and the National Park Service placed one additional 4-pin cross arm from Canyon to Lake (16 miles) on the new cedar pole line built jointly in 1925. The National Park Service strung two wires on the new arm, making an additional metallic circuit from Canyon to Lake. The Hotel Company and National Park Service placed one additional 6-pin cross arm from Fountain ranger station to Old Faithful (11 miles) on the cedar pole line built by the National Park Service in 1923. Total number of miles of circuit maintained, 402.

A new 150-line Kellogg magneto switchboard was installed at Mammoth. The old 50-line switchboard was moved to the Lake Ranger Station.

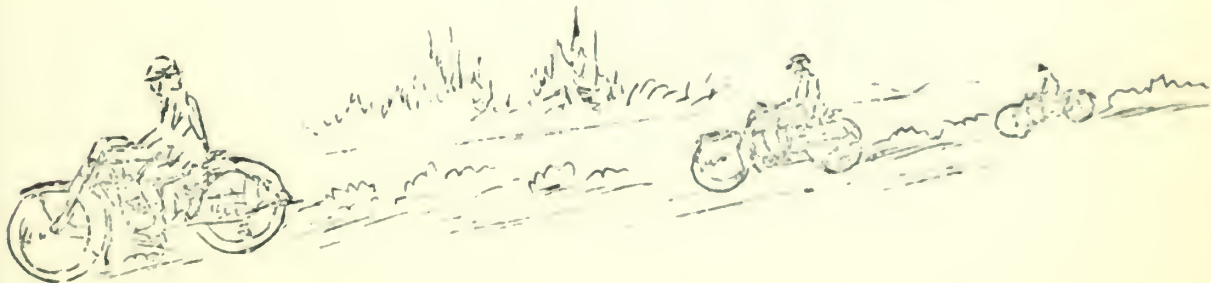
The American Telephone & Telegraph Company, using the Hotel Company and National Park Service pole lines, strung a two wire #128 copper metallic circuit from Mammoth to Old Faithful and West Yellowstone and another circuit from Mammoth to Lake via Canyon, and new magneto switchboards were placed at Mammoth, Old Faithful, Canyon and Lake. These new copper circuits are built through to Helena and give the park high class, exclusive service. The new system when completed will cost about \$150,000.

PROPERTY AND TRANSPORTATION

Under the direction of the Steward & Master of Transportation 3,240 tons of material, equipment and supplies were moved from railroad terminals to headquarters. From headquarters, 11 trucks were operated through the park, supplying road camps, construction camps, etc. The total mileage of the trucks was approximately 74,291. A maximum of 16 men were engaged in the warehouse and in the transportation work. A total of 79,138.86 ton-miles were hauled.

MECHANICAL DEPARTMENT

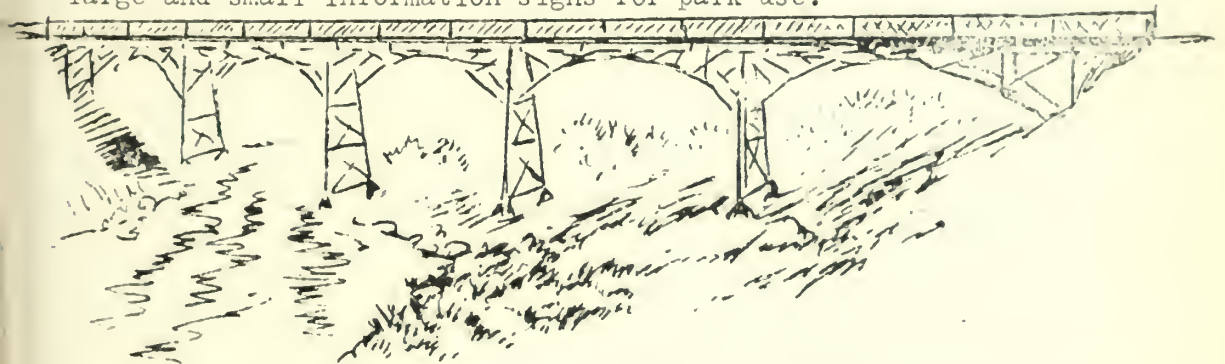
Due to the nature of the activities proposed for the past season it was necessary to place much more equipment in condition than heretofore. Twelve heavy duty trucks and two light ton trucks for freighting, five heavy duty dump trucks for surfacing, two Ford ton dump trucks for maintenance, nine heavy duty tank trucks for hauling oil, one heavy duty spray truck for the Bureau of Entomology, and 13 light trucks for general service, such as camp tenders, telephone trouble shooting, survey crews, etc., were overhauled. Six passenger cars and six motorcycles were reconditioned for administrative uses. All small tools, tents, stoves and camp equipment were repaired. The steam shovel and two air compressors were overhauled and kept running as well as a gas and a steam hoist.



On March 3, 1927, Robert R. Robinson was appointed Master Mechanic, vice B. L. Stinnett, who resigned on September 30, 1926.

PAINTING DEPARTMENT

The Master Painter and his assistants painted five bridges, including the long bridge over the Gardiner River on the Tower Falls road. Buildings at headquarters were painted on the outside and much interior painting was done. Several ranger stations were stained and roofs painted. Nine hundred signs were made, painted and lettered. 250 boards and arrows for the Educational Division were painted. The schoolroom was kalsomined and varnished; also cloak room and rest room adjoining. Painted grave markers and concrete posts at cemetery. Replaced about 90 pieces of glass in various storm sash in quarters. The floors of several sets of quarters were sanded and varnished. Considerable painting, kalsomining, varnishing, etc. was done at headquarters in the various quarters occupied by employees of the National Park Service. Also painted one truck and one touring car. Repainted mile posts and danger signs from Gardiner to Madison Junction. Varnished and painted new addition to hospital. Made, painted and lettered 36 large and small information signs for park use.



IMPROVEMENT BY PUBLIC UTILITIES AND INDIVIDUAL OPERATORS

Yellowstone Park Camps Company:- Mammoth - Employees' dining room enlarged one-third more than its original size. Remodeled inside of garage to make a large and suitable place for plumbing shop. Constructed a porch on rear of house occupied by E. H. Moorman. Constructed a cement floor in laundry in front of machinery. Installed new Worthington return steam pump in boiler house and also installed new 1,000 gallon hot water tank. Installed new kitchen equipment, such as modern steam coffee urns, new large roasting kettle, new large meat grinder. Constructed two new fire hose houses. Constructed 16 permanent cabins, single type, size 12 x 12, in public auto camp. Constructed administration and caretaker's building, size 24 x 50. Installed water lines throughout housekeeping grounds.

Old Faithful Lodge - Completed new recreation hall, approximately 100 x 160 feet. Started construction of new lobby and service buildings, approximately 135 x 160 feet. Constructed 40 twin bed permanent lodges, size 12 x 14 feet. Constructed 25 permanent lodges, size 12 x 12 feet. Constructed 2 permanent lodges, size 12 x 20 feet. In Old Faithful Public Automobile Camp constructed cafeteria building and installed all new cafeteria equipment. Also installed steam line from Old Faithful Lodge boiler house to the Old Faithful cafeteria building

in the auto camp, approximately 1,000 feet long. Installed water pipe lines throughout the housekeeping section in the public auto camp. Moved 55 new canvas tents from main lodge to the housekeeping department.

Lake Lodge - Constructed 25 permanent lodges for twin bed cabins, size 12 x 14. Constructed 12 permanent lodges, size 12 x 12 feet. Constructed 2 permanent lodges, size 12 x 20 feet. Started construction of 15 permanent lodges, size 12 x 14 feet. Constructed permanent cabin for wood house, size 12 x 14 feet. Constructed permanent cabin, size 12 x 20 feet, for new toilet building.

Lake Fishing Bridge Automobile Camp - Moved 30 good canvas tents to the housekeeping department. Installed water lines throughout housekeeping section. Converted Lake lunch counter and delicatessen into cafeteria and delicatessen. Installed new hot water plant in cafeteria building. Commenced building administration and caretaker's building in housekeeping department, size 12 x 50 feet.

Thumb - Completed cafeteria building and installed cafeteria operations.

Canyon - Constructed 45 size 12 x 14 feet and 6 size 12 x 12 feet permanent lodges. Installed a new 78 horse-power steam engine and 50 K.W. generator in boiler house. Built new sewerage tank. In public automobile camp commenced construction of new cafeteria building, frontage 72 feet, depth approximately 100 feet.

Sylvan Pass Lodge - Considerable work was done on sewerage tank in accordance with Government recommendations.

Camp Roosevelt - Installed 25 horse power gasoline engine and 12½ K.W. generator for electricity and electric light.

George Whittaker, Merchant:- Mammoth - Added two sleeping rooms to filling station. Put in two additional pumps for gasoline and two new storage tanks; also painted filling station and roof on main store. The same changes were made at Canyon filling station.

Pryor & Trischman, Park Curio Shop:- Mammoth - New foundation under curio shop.

Henry P. Brothers, Baths:- Constructed bathhouse in automobile camp grounds at Old Faithful with 6 tubs, 12 showers and 2 toilets. New pipe lines - 3,600 feet 6 inch wood stave, 3,000 feet 2 inch galvanized iron, 2,000 feet 1-1/2 inch galvanized iron.

J. E. Haynes, Official Photographer:- Old Faithful - New construction: log trimmed, 2-story living quarters (2,200 square feet) and shop (2,832 square feet) and photo finishing plant, dimensions, main floor 60 x 78 feet, second floor 32 x 44 feet. Equipment installed: 2 projection printing machines for enlarging standard 35mm film, 2 positive film printers for 35mm film, 1 convertible projector for 35mm film and lantern slides.

Mammoth Auto Camp - New construction: log trimmed 1-story shop and two bedrooms; dimensions 42 x 25 feet, floor space (business) 750 square feet, living quarters 300 square feet, total 1,050 square feet.

Tower Falls Auto Camp - New construction: log trimmed, 1-story shop (2,000 square feet) and living quarters (1,960 square feet); dimensions 90 x 44 feet. Equipment installed: 1 12-foot marble soda fountain (frigidaire cooled), and 2,000 watt Kohler electric light plant augmenting former plant at Tower Falls.

Other additions and improvements consisted of photo finishing equipment - 1 automatic 8 x 10 enlarging machine, 2 5 x 7 enlarging machines, 4 photo ferrotyping machines designed by Haynes, 4 50-gallon tanks, Pako developing, hanging and drying equipment. Also showcases, cash registers, racks for books and signs. Several new brands of films were added to old line and the Bell & Howell line of motion picture equipment and accessories. Sales of kodaks and cameras have more than doubled.

C. A. Hamilton, Merchant:- Completed new filling station at Old Faithful, Stringing electric light wires from Lake Shore to Hotel.

Yellowstone Park Hotel Company:- Mammoth - New laundry and power plant constructed in rear of hotel.

Old Faithful - 150 room addition, including 95 bathrooms, addition to lobby; addition to dining room; addition to girls' dormitory; new tailor shop; completion of outside fire protection.

Lake - New quarters for kitchen crew; completion of outside fire protection.

Canyon - New men's dormitory; installation of outside fire protection; drainage system around hotel completed; new boiler to be installed.

Yellowstone Park Transportation Company:- Gardiner - Purchased new 5-ton gasoline truck and new 3-ton service truck; acetylene generator plant completed.

Mammoth - Entire renovation of drivers' bunk house.

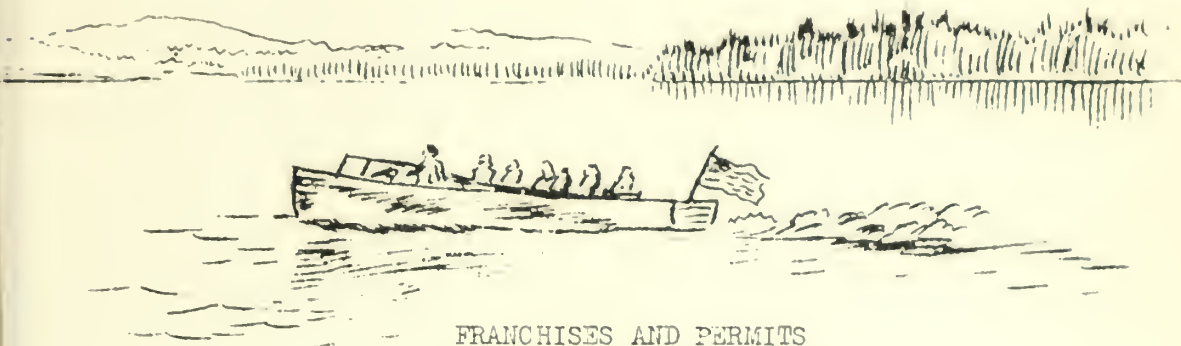
Old Faithful - New bunk house and new drivers' wash house built; service garage in auto camp completed.

Canyon - New transportation bunk house and drivers' wash house built.

Lake - New bunk house and drivers' wash house started.

Tower Falls - Gas tank and gas pump installed.

Yellowstone Park Boat Company:- Office and sleeping quarters for attendant built at Thumb; Thumb dock rebuilt; floating dock with office and sleeping quarters built at Fishing Bridge; 20 new steel row boats and one new motor boat purchased; marine railroad and warehouse started. A large building for the storage of boats constructed just west of the Fish Hatchery in the autumn of 1926.



FRANCHISES AND PERMITS

Seventeen saddle horse permits were issued during the year and five permits to take motion pictures.

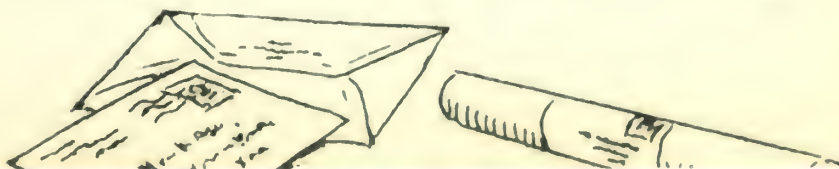
A ten year franchise for the operation of medical and hospital service in the park was executed on October 3, 1927. The term of this franchise runs from January 1, 1927, to December 31, 1936. Dr. George A. Windsor of Livingston, Montana, is the holder of the new franchise. The Yellowstone Park Hotel, Camps and Transportation Companies have executed an agreement with Dr. Windsor covering medical service to their employees, which runs concurrently with the Government franchise.

DEPARTMENT OF JUSTICE - U. S. COMMISSIONER'S COURT

Hon. John W. Meldrum, Commissioner since 1894, presiding. Proceedings were had in 26 cases during the year. There were 26 convictions and no acquittals. A total of \$739 in fines, exclusive of costs, were imposed. There were 16 cases involving violations of traffic regulations, 3 cases involving violations of the Federal Prohibition Act, 1 case involving trespass and violation of park regulations governing the possession and use of fire arms in the park, 5 cases of obnoxious and disorderly conduct, and 1 case of defacing the geyser formations.

POST OFFICE DEPARTMENT

Receipts and cancellations show a substantial increase over previous years. The demand for an extended service in the park is under consideration by representatives of the Post Office and Interior Departments.



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DEPARTMENT OF THE INTERIOR

Inspection Service:- Inspector Charles L. Gable was in the park several weeks during the year examining books of the public utilities and observing their operations and those of the National Park Service. Inspector Wilson A. Blossom and Felix E. Cristofane of the General Accounting Office, were in the park in April, giving instruction in the installation of a new accounting system. They were accompanied by Noble Wilt, Accountant for the National Park Service.

Geological Survey:- The usual inspections of water gauging stations were made regularly during the summer and the installation of the self-recording gauge on the Gardiner River, near park headquarters, was completed.

DEPARTMENT OF COMMERCE

Bureau of Fisheries:- Egg collecting at Yellowstone Lake and Fish Lake was begun about June 5th this year. The late season, disappearance of snow and flood water conditions made the collection of spawn more difficult than usual. The total collection of black spotted trout eggs from park waters was 13313000. The plants within the park from the spawn thus collected consisted of 3,833,000 fingerlings and 1,280,000 eyed eggs. Shipments of eggs or fry to points outside the park totaled 5,983,000. District Supervisor C. F. Culler was in charge of the work.

DEPARTMENT OF AGRICULTURE

Weather Bureau:- Mr. E. H. Fletcher, the local observer, was in charge throughout the year, and made many routine and special reports to us on weather conditions.

Bureau of Entomology:- Dr. H. E. Burke, of this bureau, was again on duty in the park studying forest insects and directing insect control work.

TREASURY DEPARTMENT

Public Health Service:- Mr. H. B. Hommon, Sanitary Engineer, visited the park during the summer and gave advice on sanitation and improvement of camp grounds. The Public Health Service continued to keep an assistant surgeon in the park to aid in safeguarding health. Dr. R. R. Brady of Nebraska was appointed to this position.

HOSPITAL AND MEDICAL SERVICE

In the hospital, leased to Dr. Geo. A. Windsor, of Livingston, Montana, the following cases were cared for: 27 accidents (56 minor, 31 major); 44 surgical operations (26 minor, 18 major); 13 contagious; 166 sick. A total of 4,785 were treated in the hotel and camp dispensaries. Resident Physician Brady attended to 464 office calls and 384 house calls.

ELK COMMISSION

In February 1927 the President's Outdoor Recreation Committee, composed of five members of the Cabinet, appointed a commission to study conditions of the Jackson Hole elk herds. Charles Sheldon of the Boone & Crockett Club was chairman. Superintendent H. M. Albright represented the National Park Service on the Commission. The Commission met in Washington, D. C. It was decided after studying a mass of facts regarding the Jackson Hole elk that the winter feed grounds should be extended, and it was recommended that Congress authorize the purchase of about 11,000 acres of land, near the present elk refuge, at a cost of about \$250,000. Recommendations regarding disposal of surplus elk and general administration of the herd were made. The Commission is being continued in existence.

DEATH OF PIONEERS

On January 30, 1927 Charles W. Cook died at his home in White Sulphur Springs, Montana. His wife passed away only a few months later. Mr. Cook was a member of the 1869 exploring party, known as the Folsom-Cook expedition. This party was the first to thoroughly explore the region that is now Yellowstone Park. Mr. Cook was the last of the early park explorers to die. There are still a few survivors of the Hayden Survey who were in the park in 1871, 1872 and 1878. Wm. H. Jackson, photographer for the Hayden parties, visited the Yellowstone on August 17, 1927. On June 27, 1927 Major Moses Harris, first military superintendent of the park, and who was in charge from August 17, 1886 to May 31, 1889, died at Rochester, N. Y., in his 88th year. Early in 1927 E. C. Waters, who pioneered in the operation of boats on Lake Yellowstone died in the Old Soldiers' Home at Fond du lac, Wisconsin. On October 12, 1926, Colonel John Pitcher, Superintendent of the park from May 8, 1901 to May 13, 1907 died at Edgewater, Maryland. He was 72 years of age.



Charles W. Cook

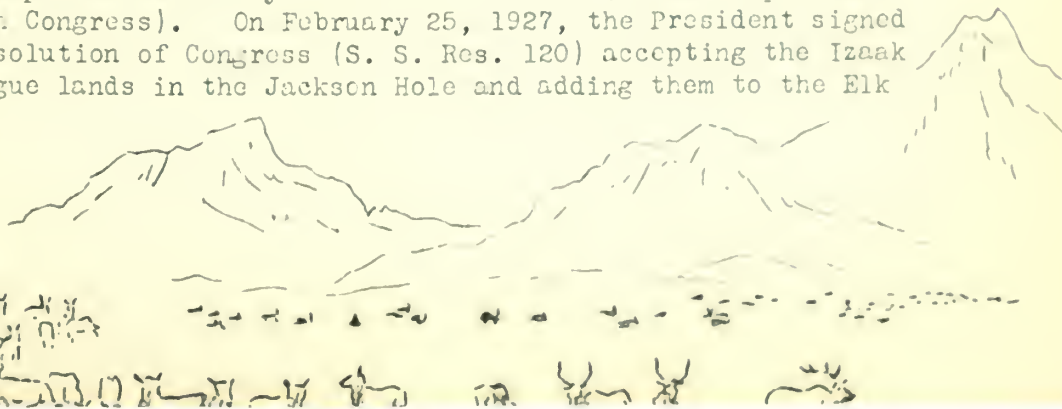
On September 23, 1927, Brigadier General Lloyd M. Brett, last military superintendent of the park, who served from September 30, 1910 to October 16, 1916, died in Washington, D. C., at the age of 71. In the latter part of 1926, George F. Cowen, who came so nearly losing his life at the hands of Nez Perce Indians in the park on August 24, 1877, died near Spokane, Washington. He was in his 85th year.

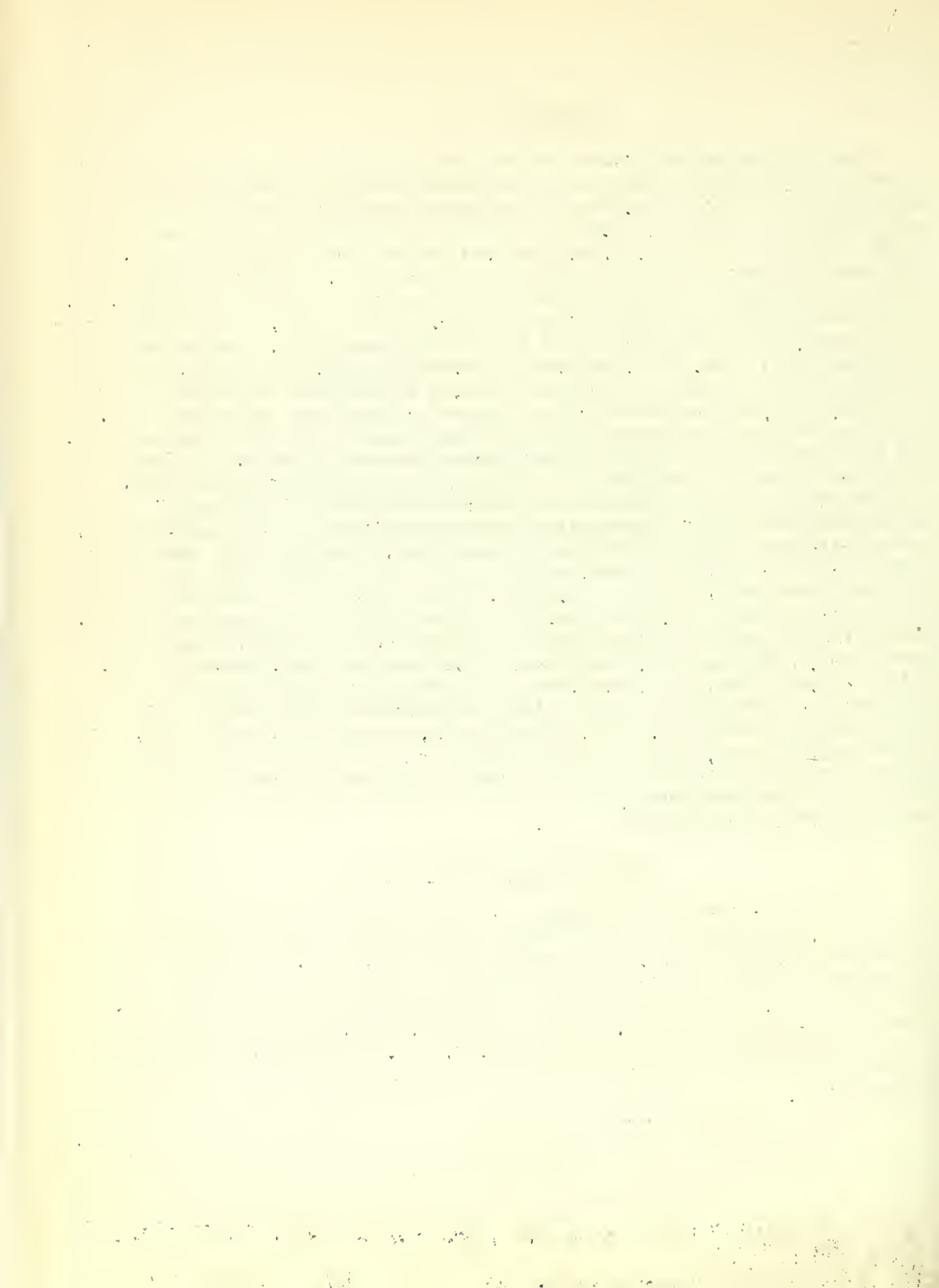
DONATIONS

The public-spirited friend in the East, whose name cannot be divulged, continued his financing of the roadside cleanup program which he undertook in 1924. The cost of work completed since the last annual report was \$9,000. Details of the work is mentioned under another heading. Mr. W. E. Corey, the well-known steel executive, who has fished in the Yellowstone region for years, has advanced \$15,000 toward a development of fish cultural facilities that will cost \$30,000. The Bureau of Fisheries will match Mr. Corey's gift, and the new facilities, including a new hatchery at Lake Yellowstone, will be built in September 1927. Mr. D. E. Skinner, of Seattle, Washington, and his associates in a ranching enterprise, donated to the Park on October 26, 1926, a 75-ton Holt caterpillar tractor in excellent condition. This fine machine has greatly aided road maintenance work this summer. The Yellowstone Park Transportation Company donated \$1,120.86 for the printing of the 1927 edition of the Manual for Railroad Visitors, and it also brought 20,000 copies of our Yellowstone guide book - "Rules and Regulations" - for distribution among its guests. J. E. Haynes, Acting Director of the Yellowstone Museum, donated material and services necessary to print, bind and issue 125 copies of the 1927 Manual for Ranger Naturalists. Mr. Haynes also donated much time to editing this book. All Mr. Haynes' work for the park is gratuitous. Space prevents mention of many gifts of books to the library of the park, and of relics, specimens, etc., to the museum. Mr. Marcus H. Doll, of Washington, D. C. provided funds for the framing of several fine original drawings of animals and birds donated by the Curtis Publishing Company. Mr. Mode Wineman, of Pasadena, California, noted camera artist, was in the park from early June to about the middle of September making new studies for the museum collection of park scenes which he started two years ago by the donation of 30 beautiful views enlarged for gallery display.

EXTENSION LEGISLATION

No action was taken by Congress on legislation to extend the Park, nor has anything been done about eliminating the Bechler River basin from the park, except that on March 4, 1927, the sub-committee of the Senate Public Lands Committee appointed to investigate this proposal, reported favorably on the elimination (Senate Report No. 1714 - 69th Congress). On February 25, 1927, the President signed a Joint Resolution of Congress (S. S. Res. 120) accepting the Izaak Walton League lands in the Jackson Hole and adding them to the Elk Refuge.





THE PRESIDENT'S TOUR OF THE PARK

As this report is completed, President Coolidge, Mrs. Coolidge and their son John have returned to Rapid City, South Dakota after five days in Yellowstone Park. They and their party of about 50 newspapermen, secret service agents, telephone, telegraph and railroad officials, arrived at Gardiner by special train at 1.20 P. M., August 22nd. They were at Camp Roosevelt and Mammoth Hot Springs the 22nd, at Old Faithful the 23rd, at Lake Yellowstone the 24th and 25th, and at Grand Canyon on the 26th. They left via the Cody gateway on the 27th, and departed from Cody by train at 1.00 P.M. The President fished in the Firehole River, and at Yellowstone, Squaw and Grebe Lakes. Mrs. Coolidge and John visited the Teton Mountains and enjoyed lodge and hotel entertainments at night.



President Coolidge, Superintendent Albright and Park Naturalist Sawyer observing the osprey in the Grand Canyon of the Yellowstone.

